

IBM Optim
Version 7 Release 3

*Optim Installation and Configuration
Guide*



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Note

Before using this information and the product it supports, read the information in “Notices” on page 527.

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This edition applies to version 7, release 3 of IBM Optim and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this Guide

This guide provides information needed to install and configure the IBM® Optim™ solution. This release runs in the Microsoft Windows environment, or in the Sun Solaris, Hewlett-Packard HPUX, IBM AIX®, or Red Hat Linux environments supplemented with a Windows workstation. Optim supports the IBM DB2®, Oracle, Sybase Adaptive Server Enterprise (ASE), Microsoft SQL Server, and IBM Informix® database management systems.

The information in this guide is organized into the following chapters.

Chapter 1, “Getting Started,” on page 1

General information about installing and configuring Optim with suggestions for preparing your site and requirements for hardware, operating systems, and supported database management systems.

Chapter 2, “Installation,” on page 23

Install Optim.

Chapter 3, “Signing an Optim Exit,” on page 49

Signing the default exit supplied with Optim or a user-defined exit. Information on writing a user exit to provide additional security for Optim processes.

Chapter 4, “Configuration Window and Menus,” on page 59

Describes the main window for the Configuration program and certain general configuration functions.

Chapter 5, “Configure Workstations,” on page 71

Use these Configuration tasks to prepare your system for Optim.

Chapter 6, “Configure the Optim Server,” on page 143

Configure the Optim Server on one or more Windows workstations.

Chapter 7, “Maintenance and Other Configuration Tasks,” on page 169

After you configure the first and any additional workstations, you are ready to start using Optim. However, it may be necessary to perform other tasks that are available from the **Tasks** menu. You can create, update, or drop DB Aliases and Optim Directories, Configure Security, enable or disable the Optim Server or ODBC interface, apply maintenance, update the DBMS version, upgrade Optim software, configure options, create primary keys, copy IBM DB2 z/OS® relationships, load or drop sample data, and load or drop data privacy data tables (if you have an Optim Data Privacy License).

Chapter 8, “Product Options,” on page 219

Customize Optim for all users. You can set general limits for editing and extracting rows of data, specify database options for commit frequency and locking tables, identify the Product Configuration File, and define the password to access Product Options.

Chapter 9, “Personal Options,” on page 247

Personal use customization of Optim for each workstation. You can customize confirmation prompts, display features, and message text, specify database logon and password information, set defaults for the schedule, browse, and create utilities, and establish default preferences for browsing and editing database tables.

Appendix A, “Install and Configure the Server under UNIX or Linux,” on page 293

Prepare your system to use the Optim Server on a Sun Solaris server, under SPARC; Hewlett-Packard HPUX server, IBM AIX server, or a Red Hat Application Server, under Linux and modify the corresponding configuration files and shell scripts.

Appendix B, “Server Credentials,” on page 369

Credentials used with the Optim Server.

Appendix C, “Command Line Maintenance Tasks,” on page 375

Perform certain configuration tasks while bypassing the graphical user interface for Optim.

Appendix D, “Optim Security,” on page 383

The three types of Optim Security — Functional Security, Object Security, and Archive File Security, as well as the security definitions, i.e., Access Control Domains (ACDs), Access Control Lists (ACLs), and File Access Definitions (FADs) used to establish Optim Security.

Appendix E, “Security Reports,” on page 437

Create a report on the permissions for Functional or Object Security privileges assigned to user and group accounts in your network.

Appendix F, “Open Data Manager,” on page 449

Provides access to data in Optim Archive Files for programs that use the ODBC and JDBC APIs.

Appendix G, “Converting PST and Optim Directory Objects,” on page 485

Contains information on converting PST Directory objects created in earlier versions of Optim into a format suitable for use in version 6.0 or later.

Appendix H, “Samples,” on page 503

Contains information on the sample database tables, Column Map Exit Routines, Column Map Procedures, Extract Files, and ODBC applications included on the installation DVD.

Appendix I, “Data Privacy Data Tables,” on page 515

Contains information on the data privacy data tables included on the installation DVD.

Appendix J, “Uninstalling,” on page 519

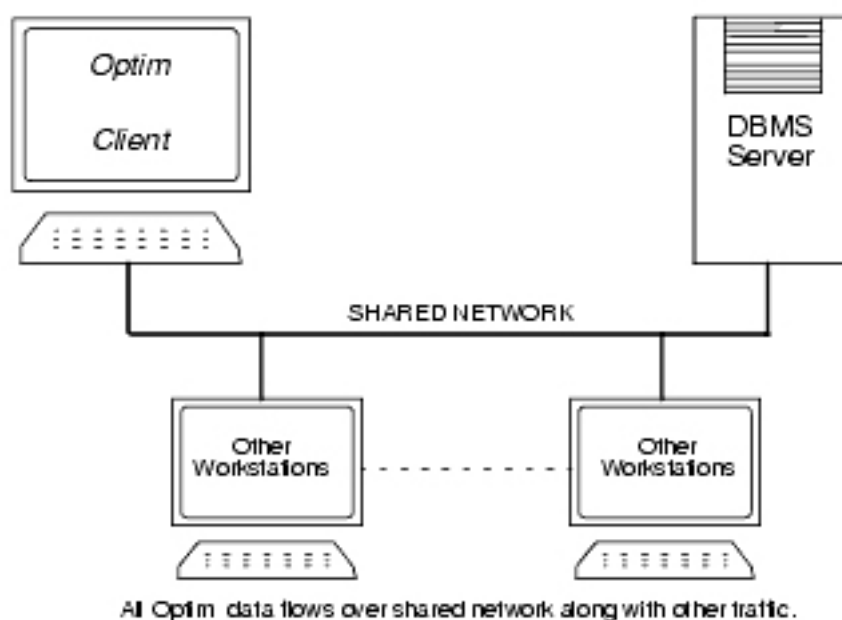
Contains information on using the uninstall procedure for Optim.

Chapter 1. Getting Started

This guide describes the programs used to install and configure the Optim solution. The Setup program guides you through the installation process, and the Configuration program prepares your databases and workstations to use Optim.

Conceptual Overview

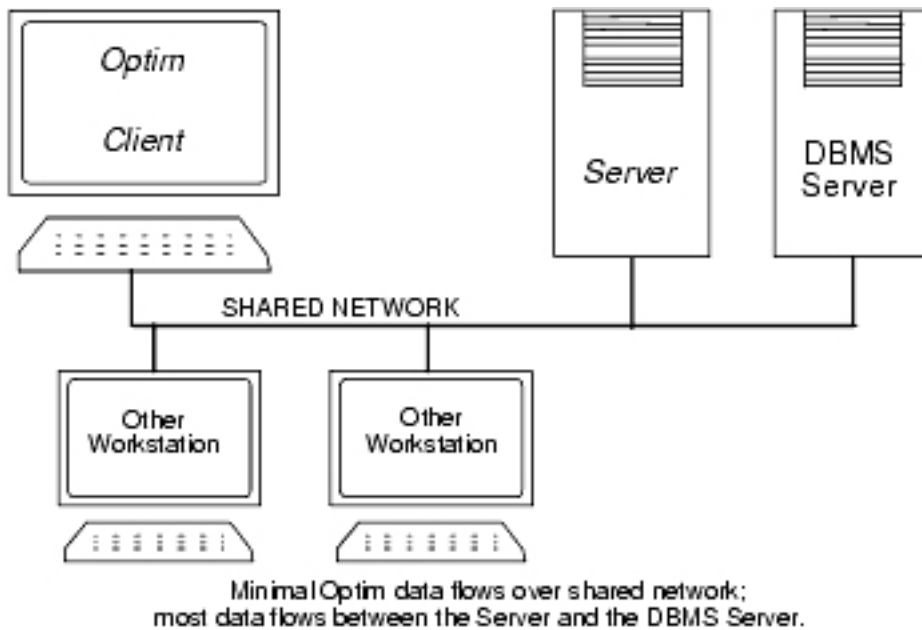
In the simplest configuration, Optim operates as a client application with all processing taking place directly on the Windows workstation. Unless the database is installed locally, the appropriate DBMS client software is used to communicate with the remote database over a network.



However, a different configuration may be desirable when network traffic generated by Optim competes with other network use, or when workstation capacity (processor, memory, or disk space) causes some tasks to be inefficient or impossible to accomplish. Also, a different configuration is required if processing data from a database in a UNIX or Linux environment.

The Optim Server (Server) allows users to define tasks on a Windows workstation, and direct resource-intensive data processing functions to a machine more suited to the task. When a task requires the movement, processing or storage of very large volumes of data, the request can be defined at the workstation in the normal way, then directed for remote processing on the machine hosting the Server.

The Server can be installed and run on a Microsoft Windows, Sun Solaris, Hewlett-Packard HP-UX, or IBM AIX platform, or on a Red Hat Application Server. If this machine is the machine on which the database is running, network traffic associated with the movement of data is eliminated. You can also install the Server on a machine dedicated to the Server function.



A dedicated server must have connectivity to the database, but can be configured to avoid competition with other network traffic. In general, a process must be defined using Optim running on a Windows platform. However, a process can be initiated on any platform, using the Command Line Interface.

Installation and Configuration Sequence

Regardless of the configuration you choose, you must first install Optim on a Windows machine that has connectivity to your database (i.e., the “First Workstation”). Following this installation, you will configure the first workstation to create the Optim Directory and any DB Aliases needed to access your databases. If the first workstation is to be used as a Server, you can also configure it for this. You can then install and configure any additional Windows-based workstations or Servers (using the Configure Additional Workstation task and, if needed, following the steps for Server configuration).

If you are implementing the Server on a UNIX or Linux-based machine, you can follow the directions in Appendix A, “Install and Configure the Server under UNIX or Linux,” on page 293 once the Windows installations are complete and Optim Directory and DB Aliases are configured.

Several steps are involved in installing Optim. This overview explains these steps, discusses the software and environmental requirements for using the application software, and describes the information you must prepare for the installation and configuration process.

Installation Phase

The installation process unloads Optim from the installation DVD to the target workstation and additional workstations or servers.

You begin the installation phase by using the program to load the application software at the first workstation. You must enter your company name and the identification number indicated in the email sent when Optim is shipped to you. You must also designate a destination directory for the application software. Depending on your license agreement, after you install and configure Optim, you may have access to one or more of the following components:

- Archive allows you to identify and archive sets of relationally intact data before removing selected data from your database. You can browse, search, or restore selected subsets of archived data.

- Move allows you to identify and extract, migrate, and process sets of relationally intact data. You can create test databases that are referentially complete subsets of a production database, copy sets of related data from a production database to a work area before revising and moving data to the production database, or migrate subsets of data that require data transformations as part of the migration.
- Edit allows you to edit and browse related data, review logical application paths, resolve data problems, modify data to test all possible scenarios, and ensure that one or more related tables contain expected data.
- Compare allows you to compare *before* and *after* images of relationally intact sets of data from a set of tables. You can identify and analyze changes to related rows to resolve referential integrity issues or identify similarities and differences between two independent databases and verify database changes.
- Scheduler allows you to schedule process requests to be executed in unattended mode.
- The Configuration program allows you to configure the first and additional workstations to use Optim. You can also establish security and perform various tasks to maintain the system environment.
- The Server allows you to process resource-intensive tasks away from the workstations to reduce network traffic and improve efficiency, to process data that resides in a UNIX or Linux environment, or to use Optim Open Data Manager to access archived data.
- Open Data Manager (ODM) provides Archive File access for programs that use the ODBC and JDBC APIs.

Workstations or File Server

You can install Optim on individual workstations or on a file server for multiple users to share.

Note: Installing Optim on a file server is different from installing the optional Server. Sites that consider installing Optim on a file server would generally tend to be unconcerned with the volume of network traffic and, therefore, may not derive any benefit from remote processing on the Server.

Your decision to install Optim on individual workstations or on a file server does not affect licensing requirements, but there are considerations for either method. The advantages of installing on individual workstations include:

- Improved performance (the executables are not loaded across a network).
- Users are not affected by an upgrade made on the file server.
- Old images are not in use while installing, configuring, or upgrading the software.

In contrast, a single installation on a file server offers the following advantage:

- Ease of administration, both at installation and when applying maintenance or upgrades.

Regardless of your choice, you should install and configure each additional workstation to create desktop shortcuts and create necessary Windows registry entries.

Configuration Phase

The configuration process creates an Optim Directory, establishes connectivity to the databases accessed by Optim, and supports other maintenance tasks. The Optim Directory is a set of tables that store all the Optim-specific object definitions you create. Typically, a site uses one shared Optim Directory, regardless of the number of database instances to be accessed or the number of workstations using Optim. However, you may create as many Optim Directories as needed to satisfy your site requirements.

The configuration phase consists of configuring the first workstation, configuring each additional workstation and, if licensed, configuring the Server component.

- **Configure the First Workstation** allows you to confirm the Product License Key and create the components shared by all workstations. For example, only one Optim Directory and one Product

Configuration File are needed, although you may have more than one of each. (Typically, all users share one Product Configuration File, which provides the Product Option settings for your site.)

- **Configure Additional Workstation** allows you to configure each workstation to share components created when the first workstation was configured. You may also specify Personal Option settings for each workstation that are recorded in the Windows registry.
- Configure the Server on one or more Windows, Solaris, HP-UX, or AIX machines.

Configure First Workstation

Several steps are involved in configuring the first workstation. Each step is briefly described in the following paragraphs.

Note: Before you configure a workstation to use Optim, the DBMS client software must be installed and you must define the information necessary to connect to the database. You must configure the DBMS client software on each workstation to permit access to individual database instances.

Product License Key

The 30-character Product License Key determines the Optim features your company is allowed to use. This key is unique to your company and is sent to you by email when Optim is shipped. You must use this key when you configure the first workstation and any additional workstations.

Note: During the process to configure the first workstation, you can optionally export the Product License Key and other details and import this information when configuring additional workstations.

Create Optim Directory

Although you may use any number of database instances with Optim, only one is designated to hold the Optim Directory. Typically, the Directory will share an instance used for other tables. While the Optim Directory is rarely so large or so heavily accessed as to justify a dedicated database instance, you can dedicate a database instance solely to the Optim Directory, if desired.

When you create the Optim Directory, you are prompted for the following information:

Optim Directory

Any meaningful name (up to 12 characters).

DBMS Type and Version

Supported database management systems include DB2, Oracle, Sybase ASE, SQL Server, and Informix.

Connection Information

User ID and password needed to connect to the database instance and the connection string needed to permit user access.

Table Information

Identifier (Creator ID, Owner ID, or Schema Name) for the Optim Directory tables and the tablespace where they are created. This identifier is used as a qualifier for the names of plans, packages, or procedures needed to access these tables. The plans, packages, or procedures are created as part of the configuration process.

Note: When you create the Optim Directory, the Configuration program also creates the Windows registry entry needed to access the Optim Directory.

Create DB Alias(es)

Optim requires a DB Alias for each database instance it accesses. You may define one or more DB Aliases at installation or use the Configuration program to add DB Aliases later.

The same information specified for the Optim Directory is needed for each DB Alias; that is, DBMS Type and Version, User ID, Password, Connection String, and Identifier for the packages, plans, or procedures to be included as part of the DB Alias definition. Meaningful DB Alias names are desirable because Optim references tables using a three-part name (*dbalias.ownerid.tablename*).

Create Optim Primary Keys

Many Optim processes require primary keys. Often, database tables do not have DBMS primary keys. In this step, you can create Optim Primary Keys for any table that does not have one, but does have a unique index. You may choose this option for each DB Alias.

Load Sample Database Tables

Optim is distributed with a sample database, consisting of several tables (CUSTOMERS, ORDERS, etc.). These sample tables allow you to experiment while learning how to use Optim and serve as the basis for training.

Load Data Privacy Data Tables

Data privacy data tables are available to clients who have an Optim Data Privacy License. These tables allow you to mask company and personal data — such as employee names, customer names, social security numbers, credit card numbers, and email addresses — to generate transformed data that is both valid and unique.

Initialize and Enable Optim Security

Optim Security allows you to secure objects in an Optim Directory, to control access to data in Archive Files, and to limit the ability of users to create objects or perform functions by assigning access permissions. To use Optim Security, you must first initialize and enable security for the Optim Directory and assign a Security Administrator. The Security Administrator can enable or disable security and establish default security settings for the Optim Directory.

Create Product Configuration File

Most installations create and use one Product Configuration File that establishes Product Options for your site. As part of this step, you can modify the Product Options maintained in the file and edit Personal Options for the workstation.

You can edit Product and Personal Options from within Optim, although it is a good idea to establish the directories to store work and temporary files during the configuration process. These directories are personal in nature and most users specify a directory on their workstation.

Export Registry Data

When you configure the first workstation, you create the Optim Directory, and the Configuration program creates a registry entry that allows Optim to connect to the Optim Directory from that workstation. If you are planning to configure one or more additional workstations, you can export the Optim Directory registry entries and the Product License information to a file. You can save time by importing this file when you configure each additional workstation.

Configure Additional Workstations

After you complete the full installation and configuration for the first workstation, you must configure any other workstations that are to use Optim.

Note: Before configuring a workstation to use Optim, you must configure the DBMS client software on the workstation to permit access to individual database instances.

Run Setup

Even if you decide to install Optim on a file server, you can run Setup before configuring each additional workstation to create application shortcuts. Next, select the Configure Additional Workstation option for each workstation.

Import Registry Data

If you exported registry settings to a file when you configured the first workstation, you can import these settings to configure each additional workstation. However, if you do not choose to export and import Optim Directory registry data, you must follow the flow in the configuration process to create a registry entry.

Configuration Process

When you configure an additional workstation and do not import registry data, you must provide the Product License Key and information needed to create a new Windows registry entry for the additional workstation. The registry entry allows Optim to connect to the Optim Directory from the workstation.

Product Configuration File

The last step in configuring each additional workstation is to identify an existing Product Configuration File (created when you configured the first workstation). You may modify Product and Personal Options, if desired.

Configure the Server

After you complete the installation and configuration for a Windows workstation that is to use Optim, you can choose to configure the Server on it. Alternatively, you can install the Server from a console and use the Command Line Interface to configure the Server in the appropriate UNIX or Linux environment.

(See Appendix A, “Install and Configure the Server under UNIX or Linux,” on page 293 for complete information.)

On a Windows machine, the Optim Server Settings dialog, available from the Windows Control Panel, allows you to configure and establish network connectivity between delegating workstations and machines hosting the Server. In addition, the workstations and any machine hosting the Server must have connectivity to the database containing the Optim Directory as well as the database containing data to be processed.

A Server must have Language Settings for each workstation that accesses it. In a purely Windows environment, you can use Regional Settings from the Windows Control Panel on the machine hosting the Server to ensure that all needed locales are installed. Installations that include one or more UNIX or Linux-based Servers translate locales between environments, using a file (locale.conf) that is installed with Optim. Depending upon the environment, the locale.conf file is located in .../IBM Optim/RT/BIN or \$(PSTHOME)\etc. You may review the list of locale translations in locale.conf and, if needed, add translations for nonstandard locales. See “Character Formats” on page 13 for more information.

Control Panel

When the installation is complete, select Optim from the Windows Control Panel to configure the Server. You can provide settings unique to the server, such as the path and executable file name for each database loader, connection strings for all defined DB Aliases, and protocols for access to the server.

Merge Current User

If desired, you can click **Merge Current User** to copy the Personal Options settings from the registry of the current user to the Server configuration.

Maintenance Tasks

The Configuration **Tasks** menu offers a number of commands that allow you to maintain the Optim environment. Some tasks are also used to configure the first and additional workstations.

Planning for Installation and Configuration

Before you install Optim, you must be prepared with information required by the installation and configuration process.

- Decide whether to install on each workstation or on a file server accessed by each workstation.
- Decide upon the installation directory.
- Determine if any database for which you must create a DB Alias supports Unicode data, choose the database instance for the Optim Directory, and determine a User ID and password for each workstation to access the Optim Directory.
- Decide whether Functional Security, Object Security, or Archive File Security is to be established for your facility and, if so, broadly identify the network users and groups for which access is allowed or denied.
- Choose an appropriate table identifier (Creator ID, Schema Name, or Owner ID) and database location (tablespace, segment, filegroup, or dbspace) for creating Optim Directory tables.
- Name a directory folder for the Product Configuration File.
- Ensure that previously installed releases of Optim, particularly the Scheduler, are not operating.
- If licensed, decide where to install the Server.

Note:

Open Data Manager (ODM) is provided with a 30-day trial license that must be replaced with a permanent license for continued use. To obtain the permanent license, you must submit a Service Request at the Integrated Data Management Support site.

Use the following link for the Detailed System Requirements document which contains complete database and platform information: Detailed System Requirements for components of IBM Optim 7.3.

Installation Requirements

Optim is a Windows application and has the following requirements.

HP-UX Considerations

On HP-UX PA-RISC architectures, Oracle versions 9i and later provide both 64-bit and 32-bit libraries. The directory for the 32-bit library must be on the 32-bit shared library path (SHLIB_PATH). Optim supports the HP-UX Itanium architecture in 32-bit emulation mode only.

Solaris Considerations

On Solaris SPARC, Oracle versions 10g and later provide both 64-bit and 32-bit libraries. The directory for the 32-bit library needs to be on the shared library load path (LD_LIBRARY_PATH). Optim does not support the Solaris x86 architecture.

Solaris and HP-UX Considerations

You must manually edit the Optim environment setup script `rt/rtsetenv`, and change the `RTORACLELIB` environment variable definition in that file based on your Oracle environment. The shell file `rt/rtsetenv` contains comments describing how to make the necessary changes.

Hardware Requirements

Optim requires certain hardware equipment and memory.

- Intel Pentium or greater (or comparable processor)
- CD-ROM drive (unless installing from a LAN)
- Hard disk space - 400 megabytes
- Disk space for the database - as required
- 256 MB of RAM is recommended. 64 MB minimum is supported. Additional memory enhances performance.

Physical Memory

Physical memory (RAM) requirements depend on the version of Windows you have installed (refer to the system requirements for your Windows version). The actual memory required for acceptable performance will depend on the number of Optim components that are open (for example, dialogs, Optim Server, ODBC server), as well as the number of open tables, the number of rows being read, and the size of their column data. It will also depend on the memory demands of all other applications and services active on the system. In all cases, it will be greater than the minimum amount of memory suggested by the Windows system requirements.

Virtual Memory

Since Windows is a virtual memory operating system, it can access more memory than actual physical memory. It does this by writing pages (sections of memory) that are not currently referenced to a “page file” on disk. When a page is referenced that is not in memory, Windows loads it back into physical memory. To do this, it must make room for the page by “swapping” it with another page, which in turn is written to the page file. Therefore, the more physical RAM a workstation has, the less swapping needs to be done and performance improves greatly.

The amount of virtual memory (page file space) required will depend on the memory usage of all applications, services, and processes that are running. Having a small amount of physical memory (RAM) means a slower system since time is spent swapping to and from a page file. However, having an insufficient amount of disk space allocated for virtual memory can cause one or more applications or even Windows itself to hang or terminate, sometimes with disastrous results.

For the 2000 and XP versions of Windows, the disk drives and amount of disk space reserved for the paging file (virtual memory) can be limited by user settings that can impact stability. You can view or change this value. Go to System Properties, **Advanced** tab, **Performance Settings** button, **Advanced** tab.

Required Database Permissions

The user account used to perform the Optim Configuration requires specific database permissions (for example, to allow tables and procedures to be created). This section describes the required permissions for the database management systems that Optim supports.

Oracle Database

When you use the Configuration program to create the Optim Directory tables and procedures, create a DB Alias, and load the sample tables for an Oracle database, the user account must have the following permissions.

CREATE PROCEDURE


```
CREATE TABLE
CREATE SESSION
UNLIMITED TABLESPACE
SELECT ANY DICTIONARY
```

Note: The SELECT ANY DICTIONARY permission can be granted to PUBLIC to satisfy the requirement. If the Oracle Initialization parameter 07_DICTIONARY_ACCESSIBILITY is set to TRUE, the SELECT ANY TABLE permission can be used instead of the SELECT ANY DICTIONARY permission.

The above permissions cannot be revoked for the user account once the Optim Directory or DB Alias is created. Oracle packages are run under the permissions of the user account that created them. If any of the required permissions are revoked, the packages become invalid when executed.

When you create the packages for the Optim Directory and the Data Dictionary, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users are able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

SQL Server

In SQL Server, the user must have a LOGIN at the database server level and a user account for the database instance being accessed. This is true for both creating and accessing an Optim Directory and a DB Alias.

If shared (global) stored procedures are used for DB Aliases, the user account used to create the stored procedures must have database owner privileges (dbo).

To create the Optim Directory in SQL Server, the following must be true:

1. You must connect to the database as the System Administrator (SA), a user account with SA role, a user account with dbo alias.

Note: The account used to connect to the database may be different from the Owner ID for the Optim Directory tables.

2. The Owner ID for the Optim Directory tables must be a valid user account for the database and must have a LOGIN to the database server. If wanted, you may specify the special SQL Server ID of dbo as the Owner ID of the Optim Directory tables and related stored procedures.

Note: The Owner ID may be different from the ID used to connect.

3. If the user account that corresponds to the Optim Directory table Owner ID does not have SA role, the user account must have the following permissions:

```
CREATE TABLE
CREATE PROCEDURE
```

When you catalog the procedures for the Optim Directory and the system tables, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users are able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

To create a DB Alias in SQL Server, the following must be true:

1. You must connect to the database as the System Administrator (SA), a user account with SA role, a user account with a dbo alias, or a user account with CREATE PROCEDURE permission.

Note: The account used to connect to the database may be different from the Owner ID for the procedures used to access the system tables.

2. The Owner ID for the procedures used to access the system tables must be a valid user ID for the database and must have a LOGIN to the database server. If wanted, you can specify the special SQL Server ID of dbo as the Owner ID of the stored procedures.

Note: The Owner ID may be different from the ID used to connect.

3. If the Owner ID for the procedures used to access the system tables does not have the SA role, then the user account must have the following permission:

CREATE PROCEDURE

When you catalog the procedures for the Optim Directory and the system tables, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users are able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

Sybase ASE

Create the Optim Directory

To create the Optim Directory in Sybase ASE, the following must be true:

1. You must connect to the database as the System Administrator (SA), a user account with SA role, a user account with dbo alias.

Note: The account used to connect to the database may be different from the Owner ID for the Optim Directory tables.

2. The Owner ID for the Optim Directory tables must be a valid user account for the database and must have a LOGIN to the database server. If wanted, you may specify the special Sybase ID of dbo as the Owner ID of the Optim Directory tables and related stored procedures.

Note: The Owner ID may be different from the ID used to connect.

3. If the user account that corresponds to the Optim Directory table Owner ID does not have SA role, the user account must have the following permissions:

CREATE TABLE

CREATE PROCEDURE

To create a DB Alias in Sybase ASE, the following must be true:

1. You must connect to the database as the System Administrator (SA), a user account with SA role, a user account with a dbo alias, or a user account with CREATE PROCEDURE permission.

Note: The account used to connect to the database may be different from the Owner ID for the procedures used to access the system tables.

2. The Owner ID for the procedures used to access the system tables must be a valid user ID for the database and must have a LOGIN to the database server. If wanted, you can specify the special Sybase ID of dbo as the Owner ID of the stored procedures.

Note: The Owner ID may be different from the ID used to connect.

3. If the Owner ID for the procedures used to access the system tables does not have the SA role, then the user account must have the following permission:

CREATE PROCEDURE

When you catalog the procedures for the Optim Directory and the system tables, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users are able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

Informix Database

The Informix utility program, SELNET 32, includes an environment variable named IFX_AUTO_FREE. This variable must not be set. If the IFX_AUTO_FREE variable has a value, the Optim Configuration program fails during the creation of the Optim Directory with the error, -481 SQL State 37000 Invalid Statement Name. To avoid or correct the error, ensure that the IFX_AUTO_FREE variable is not set.

Optim uses the ODBC module ISQLT09A.DLL to connect to an Informix server. This module is installed as part of the Informix Client SDK 2.2. This SDK must be installed on the workstation for Optim to communicate with an Informix database. (You can download the Informix Client SDK for free from the Informix website.)

To create and access an Optim Directory and a DB Alias, the user account be defined on the server (that is, the operating system). The user account must be configured in uppercase for an ANSI database and in lower case for a non-ANSI database. (The server is not case-sensitive.) To create the Optim Directory or a DB Alias, a user account must have the RESOURCE privilege.

Note: DBA privilege includes RESOURCE privilege.

In some cases, however, Informix requires that the user account used to create the stored procedures (or tables) match the stored procedure qualifier (or table owner ID). This is true even if the user account has DBA privilege. This rule also applies when creating the sample tables or data privacy tables, since a GRANT is issued as part of the creation process.

When you catalog procedures for the Optim Directory and the system tables, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users are able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

To access an existing Optim Directory or a DB Alias, a user must have CONNECT privilege.

Note: Both DBA and RESOURCE privileges include CONNECT privilege.

DB2 Linux, UNIX, Windows Interface

The DB2 Linux, UNIX, Windows interface used to validate a user account uses restricted APIs. DB2 Linux, UNIX, Windows for Windows 2000 (or above) provides a Windows Service called DB2 Security Server (db2sec.exe). This program must be started on any machine (client or server) on which a user account must be validated. For client machines, this service is necessary only if any connected instance requires client authentication. During installation of a DB2 Linux, UNIX, Windows product, this service is registered with Windows. It is removed during uninstall.

By default, the DB2 Security Server starts automatically when Windows starts. You can start it manually using the Service dialog from the Windows Control Panel or you can enter the following command at the Command Line Interface:

```
NET START DB2NTSECSERVER
```

You can stop the service manually using the Service dialog or you can enter the following command at the Command Line Interface:

```
NET STOP DB2NTSECSERVER
```

If you want to start the service manually at system startup, use the Service dialog in the Windows Control Panel to change the service startup options.

When you create a DB Alias or apply maintenance to an existing DB Alias, the DB2 Linux, UNIX, Windows client software on the workstation must be at the same or higher level as the target database.

Any version of the DB2 Linux, UNIX, Windows client can connect to a version of the DB2 Linux, UNIX, Windows database that is one version lower or two versions higher.

Note: IBM does not support a DBMS client/server configuration that includes an out-of-service version. For example, DB2 UDB version 7 clients connecting to a DB2 UDB version 8 server are no longer supported because version 7 has been withdrawn from service.

To create an Optim Directory, the following authorizations are needed:

```
CONNECT
CREATETAB
IMPLICIT_SCHEMA
BINDADD
CREATE_NOT_FENCED_ROUTINE
```

To create a DB Alias, the following authorizations are needed:

```
CONNECT
BINDADD
IMPLICIT_SCHEMA
CREATE_NOT_FENCED_ROUTINE
```

To create and load the sample tables or data privacy tables, the following authorizations are needed:

```
CONNECT
CREATETAB
IMPLICIT_SCHEMA
```

When the plans are bound for the Optim Directory and the System Catalog, you can specify a grant authorization ID. When this ID is PUBLIC (the default value), all users will be able to run Optim. Optionally, you can specify a user ID or group name to limit access to specific users.

DB2 z/OS Authorizations

You will need certain authorizations to create a DB Alias, and create and load sample or data privacy tables for DB2 z/OS.

To create a DB Alias for DB2 z/OS, the following authorizations are needed:

```
GRANT BINDADD TO userid
GRANT CREATE ON COLLECTION * TO userid
```

To create and load the sample tables or data privacy tables for DB2 z/OS, you will need the following authorizations:

```
GRANT USE OF TABLESPACE <tblspace> TO <userid>
GRANT USE OF BUFFERPOOL <bpname> TO <userid>
```

Required Server Authorizations

On a Windows machine (Windows 2000, Windows XP, Windows 2003 Server), the Optim Server can be run as a process or a service.

When it is run as a process, the Server uses the credentials of the current user ID. When it is run as a service and an explicit user ID is used, the Server requires the user ID to have the following privileges:

- Act as part of the operating system
- Bypass transverse checking
- Increase quotas
- Log on as a batch job
- Replace a process level token.

Local Security Policy

You must access the Local Security Policy to grant these privileges to the user. You can access the Local Security Policy as follows.

Note: You must be logged on to the Windows machine with a user ID that has administrator rights.

1. From the Control Panel, access the Local Security Policy applet:
Administrator Tools → Local Security Policy
2. From the Local Security Policy window, select the menu entry:
Policies → User Rights
3. On the User Rights Policy window, select the following entry in the left pane:
Security Settings → Local Policies → User Rights Assignments
4. Repeat the following steps for each of the five privileges listed above.
 - Select a privilege from the right pane of the Local Security Settings window.
 - If the user (or group) is not already listed in the **Assign To** list box, select **Add** to add the user (or group) to the list.
 - Ensure that the **Local Policy Setting** check box is checked for the user (or group).
5. Select **OK** to apply the changes and close the Local Security Policy Setting window.

UNIX Server

For UNIX, Super-User Server credentials are required to change the effective user ID and group ID. During startup, if the filelogon parameter is set to client or server, the effective user ID that started the daemon must be a Super-User (zero).

Character Formats

Optim uses the Unicode character set in dialogs and to process data.

Optim supports the following DBMS character sets:

Table 1. Oracle - Character Set Support

AL16UTF16	JA16SJIS
AL32UTF8	NEE8ISO8859P4
AR8ISO8859P6	N8PC865
AR8MSWIN1256	TR8MSWIN1254
BLT8MSWIN1257	US7ASCII
CDN8PC863	US8PC437
CL8ISO8859P5	UTF8
CL8MSWIN1251	UTF16
EE8ISO8859P2	VN8MSWIN1258
EE8MSWIN1250	WE8DEC
EL8ISO8859P7	WE8ISO8859P1
EL8MSWIN1253	WE8ISO8859P9
IW8ISO8859P8	WE8ISO8859P15
IW8MSWIN1255	WE8MSWIN1252
WE8PC850	WE8PC863
WE8PC860	

Table 2. Sybase ASE - Character Set Support

cp437	cp1257
cp850	iso_1
cp1250	iso_2
cp1251	iso_4
cp1252	iso_5
cp1253	iso_6
cp1254	iso_7
cp1255	iso_8
cp1256	iso_9
roman8	UTF16
UTF8	

Table 3. DB2 z/OS - Character Set Support

437	865
850	1252
860	UTF8
863	UTF16

Table 4. DB2 Linux, UNIX, Windows - Character Set Support

437	964
850	970
860	1252
863	1363
865	1370
936	1383
949	1386
950	UTF8
UTF16	

Table 5. SQL Server - Character Set Support

1252
UTF8
UTF16

Table 6. Informix - Character Set Support

1252
UTF8

Directories and Files

The names of all directories and files referenced by, generated, or used with Optim must consist of ASCII characters. This requirement applies to the installation directories for Optim, as well as the Optim

directories (for example, Temporary Work Directory, Data Directory, and other directories that are identified in Personal and Product Options or when configuring the Server).

All text files generated by Optim are in Unicode format and you can edit them with a Unicode-compatible text editor such as Microsoft NotePad. Optim recognizes Byte Order Mark headers in externally generated files and the following encodings:

- UTF-8
- UTF-16
- UTF-32
- ASCII
- Multi-byte

Note:

- You cannot compare Archive Files created before Archive for Servers version 6.0 with files created using a current version of Optim
- You can convert early Archive Files and compare data in the resulting Extract Files
- Report Files created with earlier versions of Optim are not accessible using version 6.x.

Optim Server

Every locale (or its translation) that the Server is required to handle must reside on the Server machine. In other words, the Server must have access to the locale of the delegating workstation. A utility, pr0locl.exe, is provided to tell you the locales that are installed on a machine and the locales with which it is compatible. As an example of the output in a Windows environment, see the following:

```
Current operating system: Microsoft Windows XP
C runtime locales are:
    LC_CTYPE    = English_United States.1252
    LC_COLLATE  = English_United States.1252
    LC_NUMERIC  = English_United States.1252
    LC_MONETARY = English_United States.1252
    LC_TIME     = English_United States.1252
Language Environment Variables:
    LC_ALL =
    LANG  =
Windows Locale is:
    LCID      = 1033 (409)
    Code Page = 1252 (4E4)
RT Server requests can run on or from a UNIX
system that has these locales or their derived locales installed
C
    en_US.ISO8859-1
```

Optim Directories and DB Aliases

Optim supports storing data in single-byte (ASCII), Unicode, and multi-byte character sets. The default character set is single byte. When you create an Optim Directory or DB Alias using a database for which Optim supports Unicode or multi-byte characters, you are prompted to indicate the character format used for storing data. To use DB Aliases with different character sets, the Optim Directory must be in Unicode format. If you indicate that the DB Alias for the Optim Directory database should share connection information with the Optim Directory, the DB Alias must use the same character set as the Directory.

Unicode Support

The Optim Directory and DB Aliases can be configured to support universal character encoding (Unicode), if character data in your Unicode-enabled database is kept in Unicode format.

Optim supports the Unicode character set for Oracle, Sybase ASE, Microsoft SQL Server, DB2 Linux, UNIX, Windows, Informix, and DB2 z/OS databases.

If Optim processes data in a Unicode-enabled database, the Optim Directory must also be in a Unicode-enabled database and the Optim Directory and DB Aliases for Unicode-enabled databases must be flagged during the configuration process.

Oracle

Unicode-enabled Oracle database servers commonly use UTF-8 but may use UTF-16. The Oracle client will typically use a single-byte character set.

Note: Using char semantics from Oracle Unicode Servers for char type columns (longer than 500) and varchar2 type columns (longer than 1000) is not supported in this release.

To prevent any loss of data, the character set used by the database client must be compatible with the character set of the database server.

Optim enforces this requirement as follows.

Version 8i Oracle clients

For release 8i, the character set for the Oracle client is set in the NLS_LANG environment variable, for example:

- SET NLS_LANG=AMERICAN_AMERICA.UTF8

Restart Optim and/or the Configuration program after making any changes to the character set.

1. If the client uses a Unicode character set, the database server must also use a Unicode character set. The Optim Directory must reside in a Unicode-enabled database and the Directory and DB Alias for the database must be configured for Unicode data.
2. If the database server does not use a Unicode character set, the client cannot use one either. The DB Alias for the database must not be configured for Unicode data.
3. If the database server uses a Unicode character set and the client does not, an error results.

Version 9.0 and Later Oracle Clients

For releases 9.0 and later, the character set for the Oracle client is set in the NLS_LANG environment variable, for example:

- SET NLS_LANG=AMERICAN_AMERICA.AL32UTF8

Restart Optim and/or the Configuration program after making any changes to the character set.

Version 9.2 and Later Oracle Clients.

1. If the client uses a DB Alias configured for Unicode data to connect to a Unicode database, the client character set is automatically set to match the server character set.
2. If the client uses a DB Alias that is not configured for Unicode data to connect to a Unicode database, an error results.
3. If the client uses a DB Alias that is not configured for Unicode data to connect to a non-Unicode database, the client character set is automatically set to match that of the server. (See “Character Formats” on page 13 for a list of supported character sets.)
4. If the client uses a DB Alias that is configured for Unicode data to connect to a non-Unicode database, an error results.
5. If the workstation for the Oracle client uses a non-Unicode character set that is not supported by Optim, an error results.
6. If the character set for the database server is not supported, an error results.

Microsoft SQL Server

Because SQL Server does not differentiate based on Unicode characteristics, you need not indicate whether an SQL Server Optim Directory or DB Alias is kept in Unicode format. However, the following rules apply:

1. An Optim Directory in an SQL Server database is kept in Unicode format. You must indicate whether any DB Aliases for Unicode-supported databases are to be kept in Unicode format.
2. A DB Alias for an SQL Server database must use the same character format as the Optim Directory.

Sybase ASE

To prevent any loss of data, the character set used by the Sybase ASE database client must be compatible with the character set of the database server. Optim enforces this requirement as follows:

1. If the client uses a DB Alias configured for Unicode data to connect to a Unicode database, the client character set is automatically set to match the server character set.
2. If the client uses a DB Alias that is not configured for Unicode data to connect to a Unicode database, an error results.
3. If the client uses a DB Alias that is configured for Unicode data to connect to a non-Unicode database, an error results.

DB2 Linux, UNIX, Windows

To prevent any loss of data, the character set used by the DB2 Linux, UNIX, Windows database client must be compatible with the character set of the database server. Optim enforces this requirement as follows:

1. All DB2 Linux, UNIX, Windows DB Aliases in a DB2 Linux, UNIX, Windows Optim Directory must have the same Unicode format as the Directory.
2. If the client uses a DB Alias configured for Unicode data to connect to a Unicode database, the client character set is automatically set to match the server character set.
3. If the client uses a DB Alias that is not configured for Unicode data to connect to a Unicode database, an error results.
4. If the client uses a DB Alias that is configured for Unicode data to connect to a non-Unicode database, an error results.
5. DB2 Linux, UNIX, Windows DB Aliases in an Oracle, Sybase ASE, or MS SQL Server Optim Directory can have different Unicode formats; however, Optim cannot connect to both a Unicode-enabled DB2 Linux, UNIX, Windows database and a non-Unicode-enabled DB2 Linux, UNIX, Windows database during the same session.

DB2 z/OS

To prevent any loss of data, the character set used by the DB2 z/OS database client must be compatible with the character set of the database server. Optim enforces this requirement as follows:

1. All DB2 z/OS DB Aliases in a DB2 Linux, UNIX, or Windows Optim Directory must have the same Unicode format as the Directory.
2. If the client uses a DB Alias configured for Unicode data to connect to a Unicode database, the client character set is automatically set to match the server character set.
3. If the client uses a DB Alias that is not configured for Unicode data to connect to a Unicode database, an error results.
4. If the client uses a DB Alias that is configured for Unicode data to connect to a non-Unicode database, an error results.

5. DB2 z/OS DB Aliases in an Oracle, Sybase ASE, or MS SQL Server Optim Directory can have different Unicode formats; however, Optim cannot connect to both a Unicode-enabled DB2 z/OS database and a non-Unicode-enabled DB2 z/OS database during the same session.

If a DB2 z/OS Tablespace includes both Unicode and non-Unicode tables, you must create a separate DB Alias for each table type, a Unicode DB Alias and a non-Unicode DB Alias.

During Load Processing, you can use only one connection, either Unicode or non-Unicode. You must exit Optim before switching between a Unicode or non-Unicode connection.

If the Load Process includes UTF-8 characters in table or column names, the Control File will be in UTF-8 format. Before transferring a UTF-8 Control File to a z/OS machine, the file must be converted to binary format. To browse a UTF-8 Control File on a z/OS machine, you must apply IBM SPE APAR OA07685 - ISPF Browse Support for Unicode to the machine.

Informix

Unicode support is available for Informix. If an Optim Directory is in an Informix Unicode database, all DB Aliases must be Unicode.

Multi-byte Support

The Optim Directory and DB Aliases can be configured to support multi-byte character encoding, if character data in your database is kept in a multi-byte character format.

For information about supported multi-byte character sets, see the link for character set support in the Detailed System Requirements document for your release of Optim.

If Optim processes data in a multi-byte-enabled database, the Optim Directory must be in a multi-byte or Unicode-enabled database. The Optim Directory and DB Aliases for multi-byte-enabled databases must be flagged during the configuration process. An Optim Directory in multi-byte format supports multi-byte DB Aliases only.

Optim uses the Unicode character set in dialogs and to process information. In some multi-byte character sets (such as Oracle JA16SJIS), multiple characters are mapped to the same Unicode character. When these characters are converted from Unicode back to multi-byte (a round trip), the original character may not be returned. Optim provides a Product Option (on the **Database** tab) and a Personal Option (on the **Database**) that determine how to handle round-trip conversion issues when processing data in a multi-byte database.

Compatible Character Sets

To prevent any loss of data, the character set used by the database client must be compatible with the character set of the database server. Optim enforces this requirement as follows:

1. If the client uses a DB Alias configured for multi-byte data to connect to a multi-byte database, the client character set is automatically set to match the server character set.
2. If the client uses a DB Alias that is not configured for multi-byte data to connect to a multi-byte database, an error results.
3. When connecting to an Optim Directory, the client may establish a connection, check the database character set, drop the connection, and reestablish it with a new language setting.

Note: Because Oracle stores character LOBS in UCS2, a 16-byte Unicode format, multi-byte character LOBS may not be stored correctly in a multi-byte database. For more information, refer to your Oracle documentation.

Troubleshooting Your Installation

The Optim DVD includes several utilities that help you troubleshoot your installation and configuration activities. You run these utilities from the Command Line Interface.

Image Locator Diagnostic Tool

The Image Locator Diagnostic Tool, PN0IMAGE.EXE, is a utility that can aid in locating missing DLLs.

The syntax of the command follows:

```
PN0IMAGE [/R] [/Ofilespec] imagetolocate
```

where

/R Is an optional switch that creates a cross-reference list of image relationships.

/O Is an optional switch that causes the output to be sent to the location referenced by *filespec*. Normally, output is sent to STDOUT.

imagetolocate

Is the name of the image to find. The name must include the proper extension, DLL or EXE.

If the image is not in the current directory, then it must be fully qualified with the proper path information. This utility can be used to determine which DLL could not be loaded when the following Optim System error occurs:

```
RetCode: PST_FAILED(-00001) General logic error
ExtCode: ENVERR_BADSPGMLOAD(00231) Load of PST SPGM
or ExtDLL failed
OpsCode: The specified module could not be found.
Token1: PN0DSQ20
Token2: PN0DSQ20
```

Resolve missing DLL

To resolve the missing DLL in the above example:

1. Open a MS-DOS window.
2. Change to the drive and directory where the Optim software was installed (usually, C:\Program Files\IBM Optim\RT\BIN).
3. Run the Image Locator Diagnostic Tool with the name of the offending module. For example, PN0IMAGE PN0SQ20.DLL.

Oracle Connection Diagnostic Tool

The Oracle Connection Diagnostic Tool, ORACONN.EXE, is a utility that determines if Optim was installed correctly when it fails to connect to an Oracle database.

The syntax of the command follows:

```
ORACONN userid password TNSservicename
```

where

userid Is the user ID used to connect to the Oracle database. The user ID must be defined in the Oracle database.

password

Is the password used to connect to the Oracle database. The password must be defined for the specified user ID in the Oracle database.

TNSservicename

Is the name of the service associated with the Oracle database.

Test Oracle database connection

To test the connection to an Oracle database:

1. Open a MS-DOS window.
2. Change to the drive and directory where the Optim software was installed (usually, C:\Program Files\IBM Optim\RT\BIN).
3. Run the Oracle Connection Diagnostic Tool with the name of the TNS Service to which you wish to connect. For example, *ORACONN internal password beq-local*

Microsoft Debugging Utility

The Microsoft Debugging Utility, USERDUMP.EXE, creates a memory dump for a process. Since the output is quite large (as much as 50 meg), use this tool only at the request of Support.

To display a list of running processes and process IDs, enter

```
USERDUMP -p
```

To dump processes associated with a single process ID or image binary file name, enter

```
USERDUMP [-k] <ProcessSpec> [<TargetDumpFile>]
```

To dump processes associated with multiple process IDs or image binary file names, enter

```
USERDUMP -m [-k] <ProcessSpec> [<ProcessSpec>...] [-d <TargetDumpPath>]
```

To dump Win32 GUI processes that appear to hang, enter

```
USERDUMP -g [-k] [-d <TargetDumpPath>]
```

where

-k Optionally causes processes to be killed after being dumped.

<ProcessSpec>

Is a decimal or 0x-prefixed hex process ID, or the base name and extension (no path) of the image file used to create a process.

<TargetDumpFile>

Is a legal Win32 file specification. If not specified, dump files are generated in the current directory using a name based on the image file name.

-d <TargetDumpPath>

Is the directory in which the dump files are to be created. The default is the current directory.

If a Toolbox Process Is Hanging

To dump the main Toolbox process if that is the one that is hanging:

1. Open a MS-DOS window.
2. Enter *USERDUMP -p* to get a list of processes and process IDs. Look for the process, *PR0TOOL.EXE*.
3. Enter *USERDUMP nnnnn*, where *nnnnn* is the process id for *PR0TOOL.EXE*.

The program will take about 10 or 20 seconds to produce the dump file. A dump file will be created in the current directory (unless you specified a target dump file name) with a name similar to `PR0TOOL.DMP`.

Chapter 2. Installation

Installing Optim takes only a few minutes. The program guides you through the installation process. You can install Optim using the graphical user interface, console install, or silent install. When installation completes, use the Configuration program to prepare your workstations to use Optim.

To install Optim from the graphical user interface, see “Install Introduction.”

Installing from the console is detailed in “Console Install - Windows” on page 35.

Information for the silent install is in “Silent Installer - Windows” on page 44

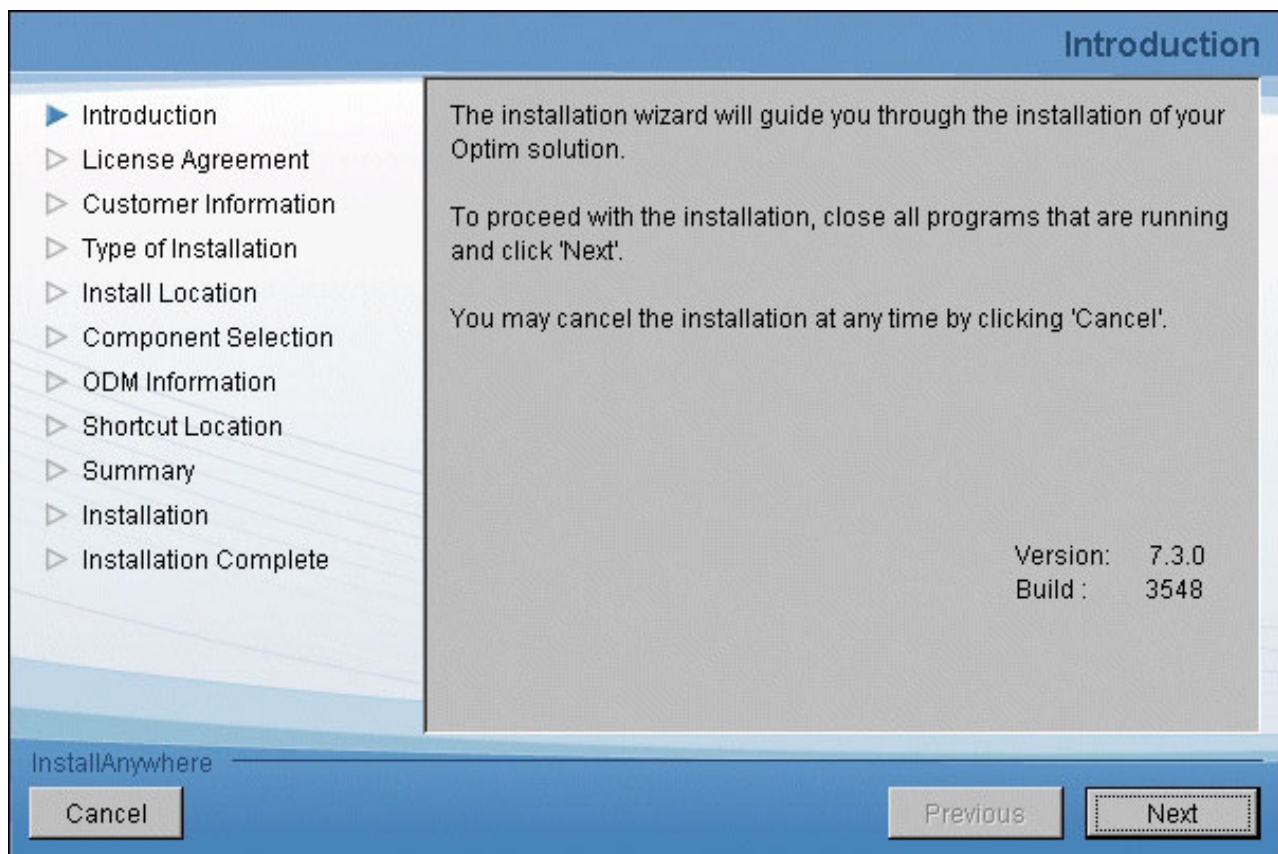
You can find information needed to install and configure the Optim Server (Server) feature of Optim on a machine using the Solaris operating environment, under SPARC; the HPUX operating environment; the AIX operating environment; or Red Hat Application Server in Appendix A, “Install and Configure the Server under UNIX or Linux,” on page 293.

Install Introduction

You can begin Optim installation using the graphical user interface in one of three ways.

1. Insert the Optim DVD in the workstation drive. Optim begins the installation automatically.
2. Open Windows Explorer, double-click the icon for your DVD drive, and double-click IBMOptim.exe.
3. Open Network Neighborhood, open the network drive that contains the contents of the Optim DVD, and double-click IBMOptim.exe.

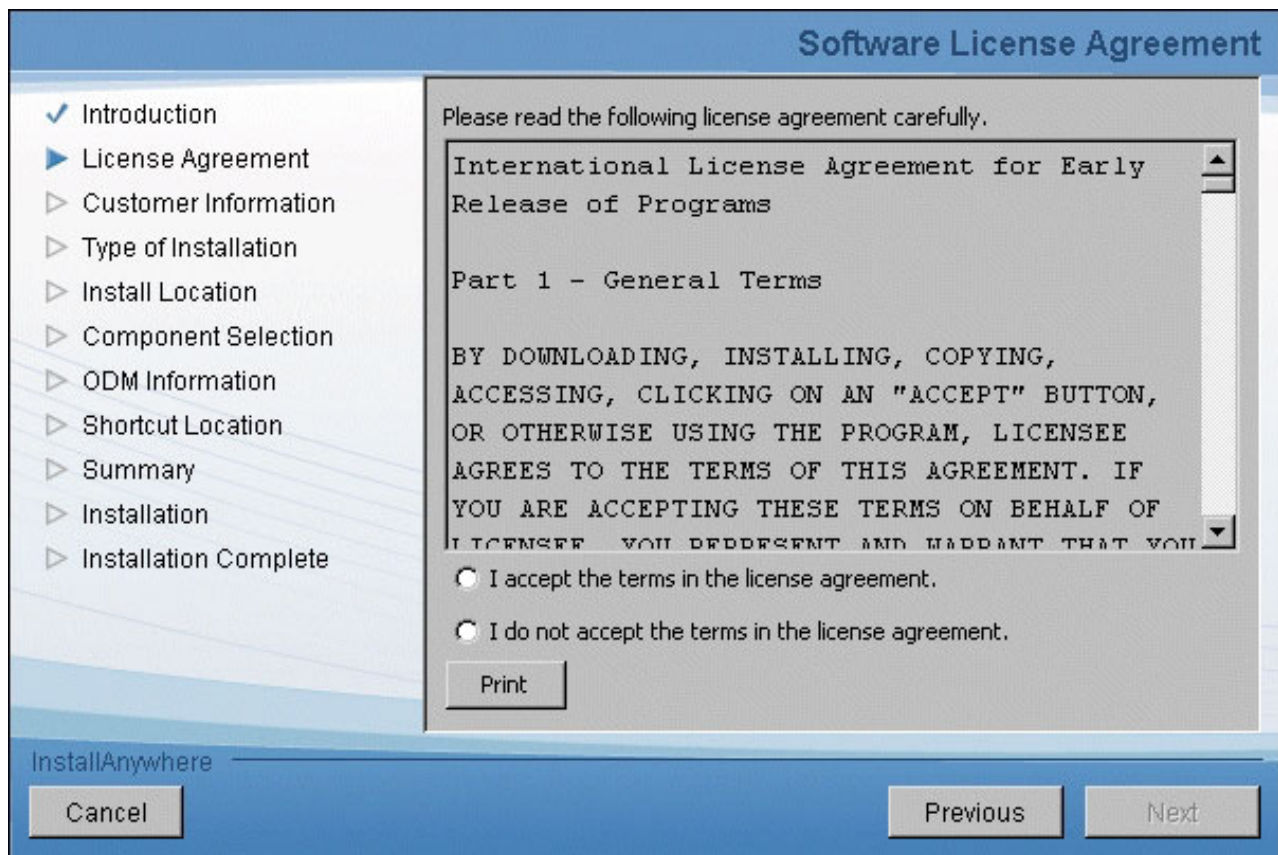
Optim displays the Introduction dialog.



After you read the text, click **Next**, to continue to the “Software License” on page 25.

Software License

The Software License Agreement dialog prompts you to accept the License Agreement.



Command Buttons

After you read and accept the License Agreement, select **I accept the terms in the license agreement** to indicate that your company agrees to its provisions. You must click **Next** to continue to the "Customer Information" on page 26 dialog. Other command buttons:

I do not accept the terms in the license agreement

Cancels and does not install Optim.

Print Prints this dialog.

Cancel

Cancels and does not install Optim

Previous

Returns to the "Install Introduction" on page 23 dialog.

Customer Information

The Customer Information dialog prompts for information to supplement your company License Key.

Customer Information

- ✓ Introduction
- ✓ License Agreement
- ▶ **Customer Information**
- ▷ Type of Installation
- ▷ Install Location
- ▷ Component Selection
- ▷ ODM Information
- ▷ Shortcut Location
- ▷ Summary
- ▷ Installation
- ▷ Installation Complete

If using a temporary 30-day license, see Release Notes for information needed to complete this page. If you have a permanent license, an email from IBM contains the license key and information needed to complete this page. You will apply the license key at the time you configure your Optim solution.

Direct all Optim license key requests and inquiries to optkeys@us.ibm.com

User Name:

Company Name:

Company ID:

InstallAnywhere

The following information is needed to proceed with the installation:

User Name

Your User ID.

Company Name

Your company name, as provided on the notification sent when Optim is shipped to you.

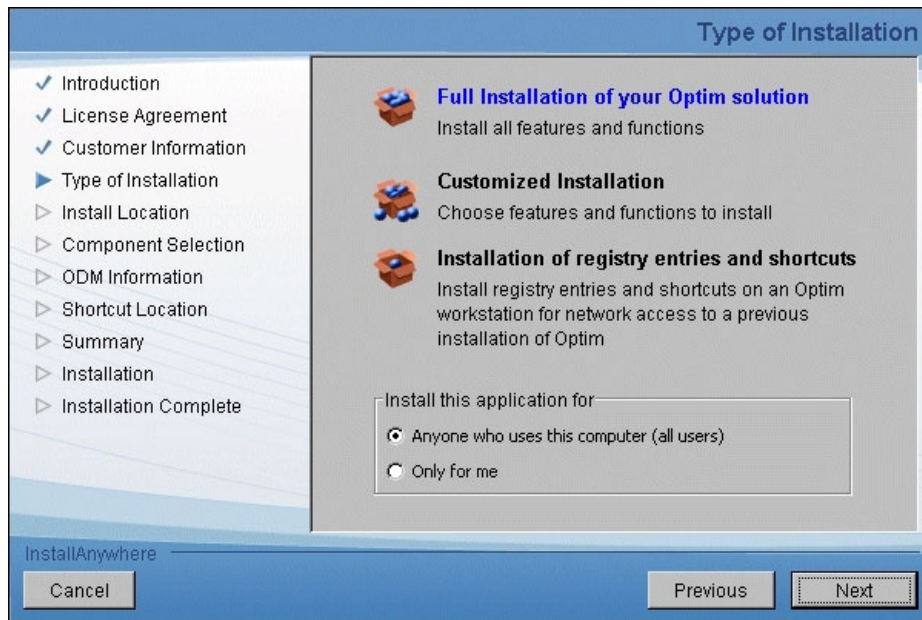
Company ID

Your company identifier, as provided on the notification sent when Optim is shipped to you.

Click **Next** to continue with the “Select the Type of Installation” on page 27 dialog or click **Previous** to return to the “Software License” on page 25 dialog.

Select the Type of Installation

The Type dialog prompts you to choose a full installation of Optim or to set up registry entries and shortcuts only.



Select:

- **Full Install** to install Optim on a particular workstation, server, or network drive. This type of setup includes Windows registry entries and shortcuts to access Optim from the workstation you are using
- **Customized Installation** to select components
- If Optim is already installed on your network, and you want to access it from the workstation you are using, select the option to install **Installation of registry entries and shortcuts**

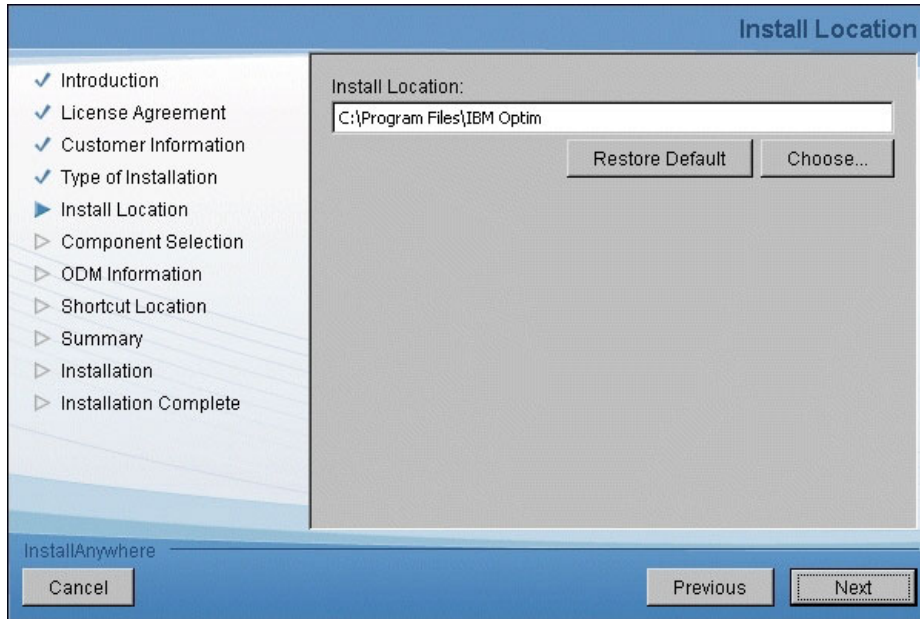
In the lower portion of the dialog, indicate whether you would like the workstation to share the Personal Options and other information in the same registry or use a separate registry for each user. Click **Anyone who uses this computer (all users)** to share the registry information, or click **Only for me** to allow each user to have a private copy of the registry information.

Previous returns to the “Customer Information” on page 26 dialog.

Next continues with the “Install Location” on page 28 dialog.

Install Location

The Optim software must be installed in a destination directory folder. When the Install Location dialog opens, a default destination is specified. If this folder does not exist, Optim creates it as part of the installation process.



Install Location:

Displays the full default directory path for installing Optim.

Note: If you are installing for a workstation with the Optim software on a file server, you must specify a Directory Folder on the server where the software is installed.

Restore Default

The full default directory path for installing Optim.

Browse. . .

Opens the Choose Folder dialog where you can select a different folder for installing Optim.

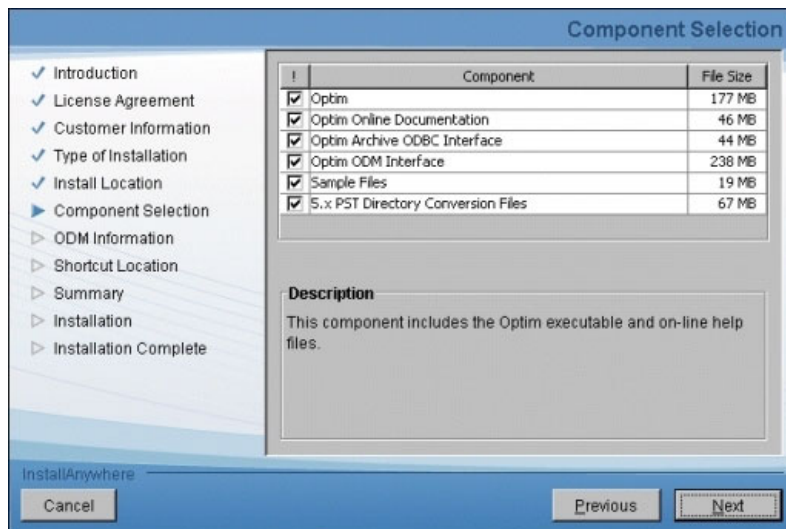
Previous returns to the “Select the Type of Installation” on page 27 dialog.

If you are doing a **Full Installation**, **Next** continues to the “Install ODM” on page 30 dialog.

If you selected **Customized Installation**, the “Select Components” on page 29 dialog is next.

Select Components

The Select Components dialog displays if you chose Customized Installation. It lists the components available for installation.



Compare the Space Required to install the selected components with the Space Available in the directory you specified in the Choose Destination Location dialog.

Note: If the space available is insufficient for installing the selected components, click **Previous** to specify a different destination, or click **Cancel** to quit the installation process.

Optim

Select **Optim** to install the product and the online help files.

Optim Online Documentation

Select **Optim Online Documentation** to install the Introductions, User Manuals, Installation and Configuration Guide, Optim Basic Manual, and Common Elements Manual in PDF format. Additionally, the latest release notice and revision history is included.

Optim Archive ODBC Interface

Select **Optim Archive ODBC Interface** to install version 3.51 of the Open Data Base Connectivity (ODBC) Application Programming Interface (API). Selecting this component registers the Optim ODBC Interface driver with ODBC on your workstation. This component is not available in a UNIX or Linux environment.

Note: If your workstation has an earlier version of ODBC installed, selecting this component will upgrade the API to ODBC version 3.51.

Optim ODM Interface

Select **Optim ODM Interface** to install Open Data Manager (ODM), which requires a product license. If you select this option, see Appendix F, "Open Data Manager," on page 449 for ODM installation instructions.

Sample Files

Select **Sample Files** to install sample Extract, Visual Basic, and Column Map Exit files (see Appendix H, “Samples,” on page 503 for further information).

5.x PST Directory Conversion

5.x PST Directory Conversion is selected by default to install files required for converting PST Directory objects created using version 5.x into a format suitable for use with Optim version 6.0 and later. See “Conversion Process for 5.x Optim Directories” on page 486 for details.

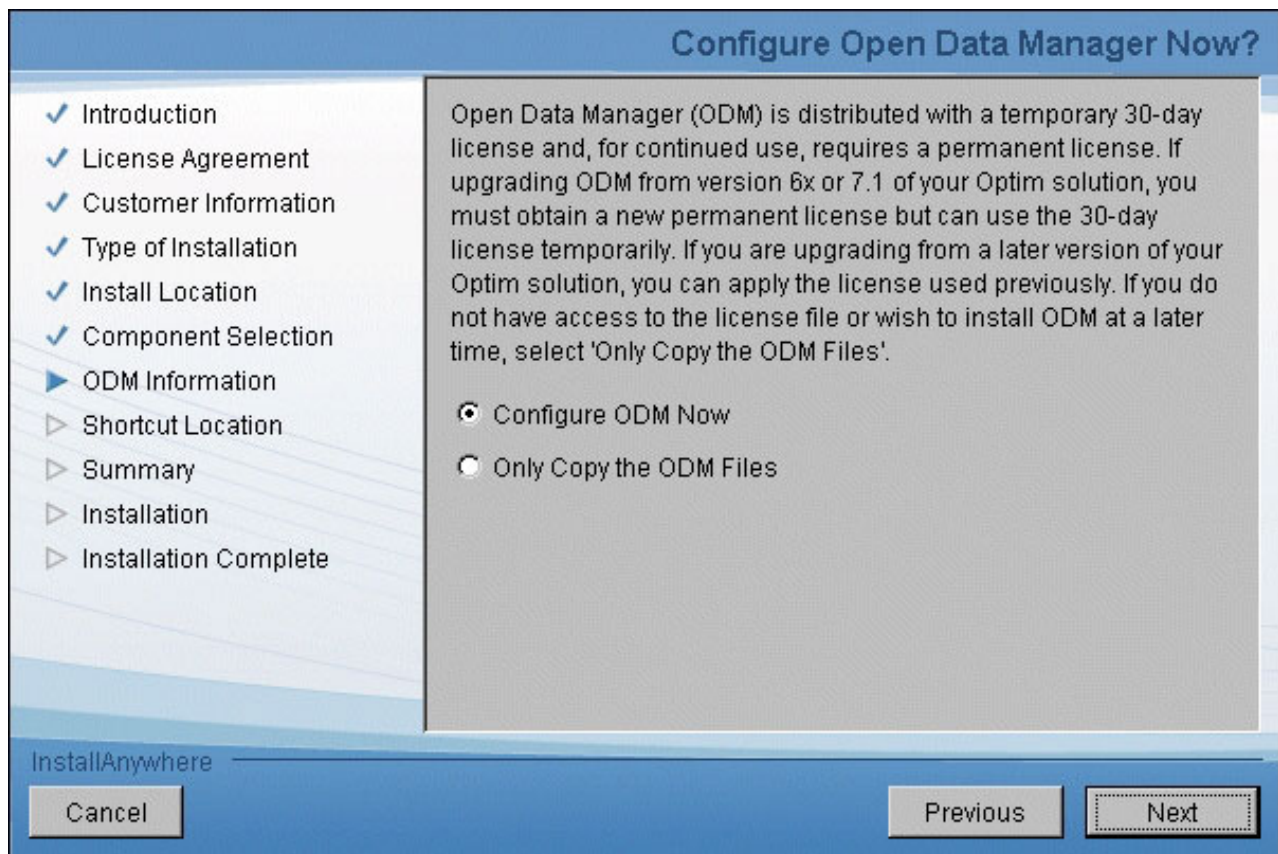
Clear the check box unless you are upgrading from an earlier version of Optim.

To continue, click **Next**.

- If you selected **Optim ODM Interface**, the “Install ODM” dialog displays next.
- If you did not select **Optim ODM Interface**, the “Shortcut Location” on page 32 dialog is next.

Install ODM

The Configure Open Data Manager Now? dialog displays if you chose Full Installation or you selected **Optim ODM Interface** on the Select Components dialog. You can install ODM as part of the Optim installation process or copy the files and install ODM at a later time.

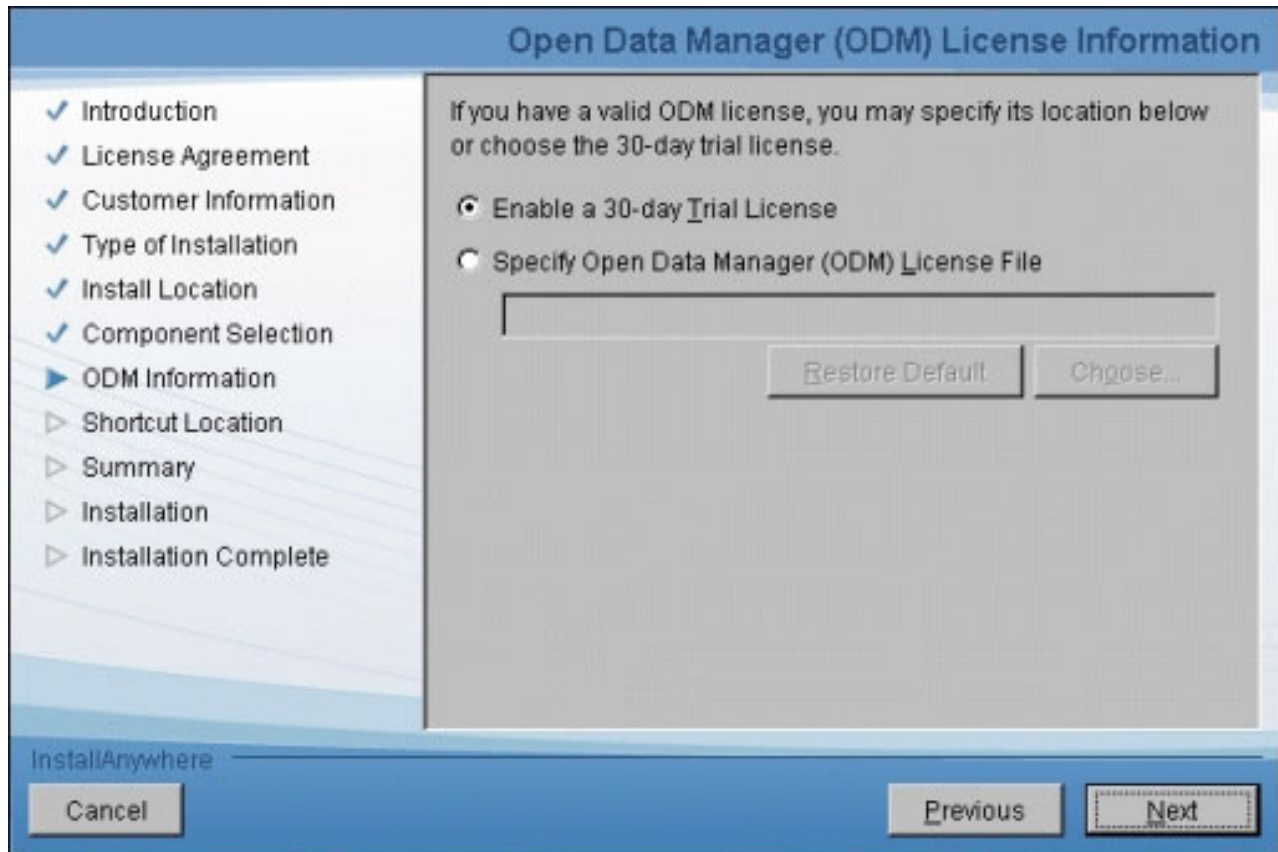


If you select **Configure ODM Now** and click **Next** the “Open Data Manager (ODM) License Information” on page 31 dialog displays.

Selecting **Only Copy the ODM Files** and clicking **Next** displays the “Shortcut Location” on page 32 dialog.

Open Data Manager (ODM) License Information

This dialog prompts you to specify your ODM license file or choose a trial license.

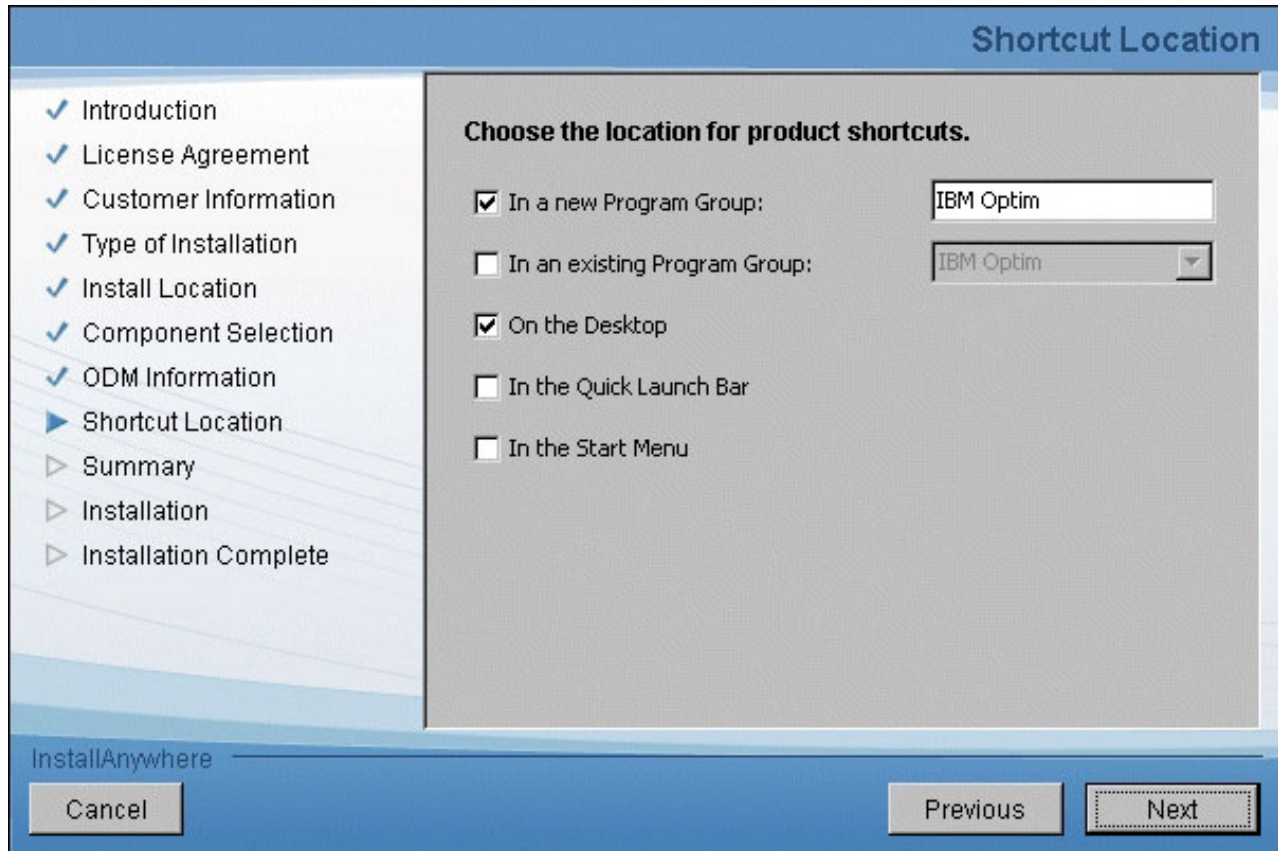


Select **Enable a 30-day Trial License** to install ODM for the trial use period. If you choose **Specify Open Data Manager (ODM) License File**, enter the name of the license file in the text box or click **Choose** to browse for the file.

Click **Next** to display the “Shortcut Location” on page 32 dialog.

Shortcut Location

The installation process prompts you to install shortcuts on your desktop. Using this dialog, choose a folder to hold shortcut icons for these installed components: Optim, Optim Configuration, Optim Scheduler. Select the location and click **Next** to create the desktop icons.



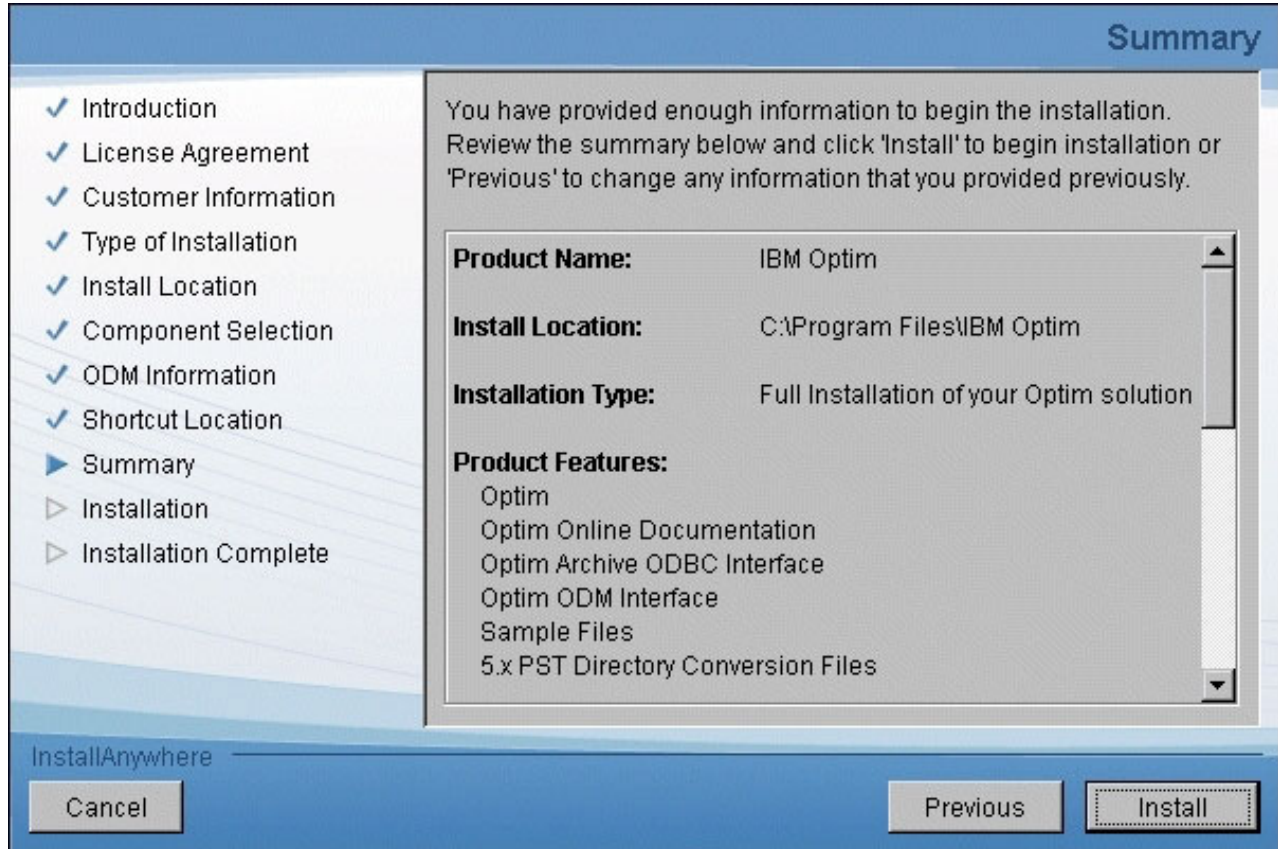
Choose from these options:

- **In a new Program Group**
Specify a folder name to be created under the Windows Program menu. The default name is **IBM Optim**.
- **In an existing Program Group**
Select the name of an existing folder from the drop-down list.
- **On the Desktop**
- **In the Quick Launch Bar**
- **In the Start Menu**

When you click **Next** the “Summary” on page 33 dialog displays.

Summary

The Summary dialog displays the installation settings for your review. You can modify the settings by clicking **Previous** to return to any installation dialog. Click **Install** to accept the settings and proceed with the installation.

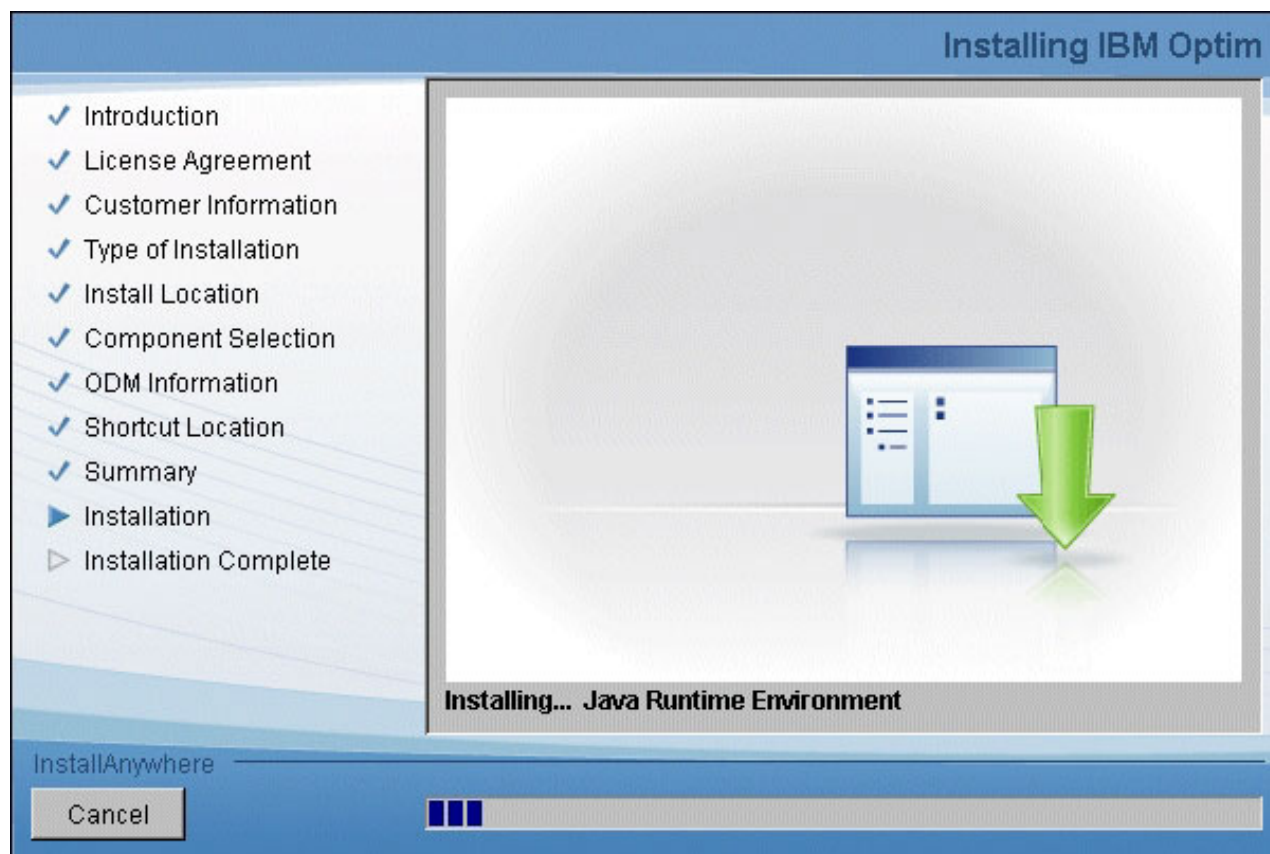


When you click **Install** the “Installing IBM Optim” on page 34 dialog displays.

Installing IBM Optim

When you click **Install** on the Pre-installation Summary dialog, the installation process begins.

The Installing IBM Optim panel displays and a progress bar allows you to monitor the process.

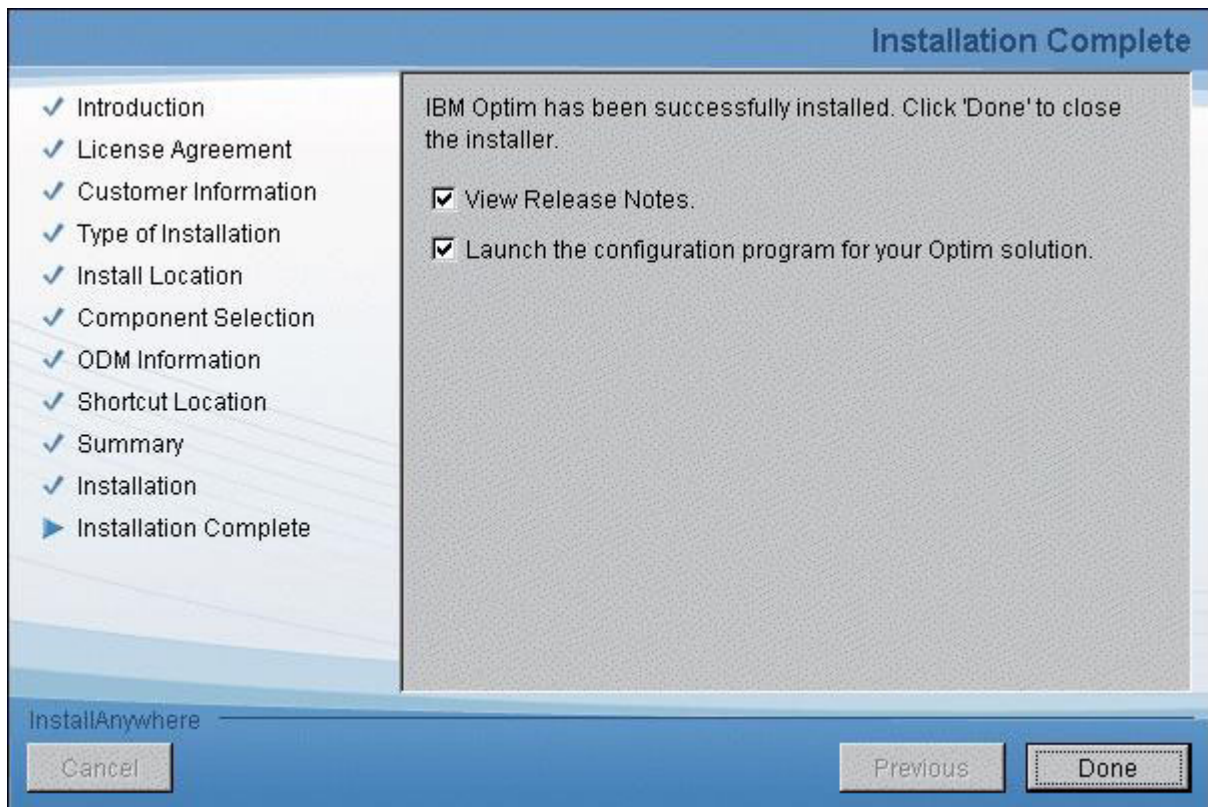


At the end of the process the “Installation Complete” panel displays.

Installation Complete

When the installation process finishes, the Installation Completed dialog allows you to:

- View the Release_Notes.html file for the installed release
- Launch the Optim Configuration program and display the Sign Optim Exit dialog.
 - The Sign Optim Exit dialog allows you to sign the default exit supplied with Optim or a custom, user-supplied exit of your own creation, as described in “The Sign Optim Exit Dialog” on page 54. You must sign the default exit or a user-supplied exit to continue with the Configuration process and use Optim.
 - After you sign an exit, the Configuration program will launch the Optim Configuration Assistant, which is described in detail in “Configuration Assistant” on page 66.



Click **Done** to display the Release_Notes.html file and launch the Configuration program.

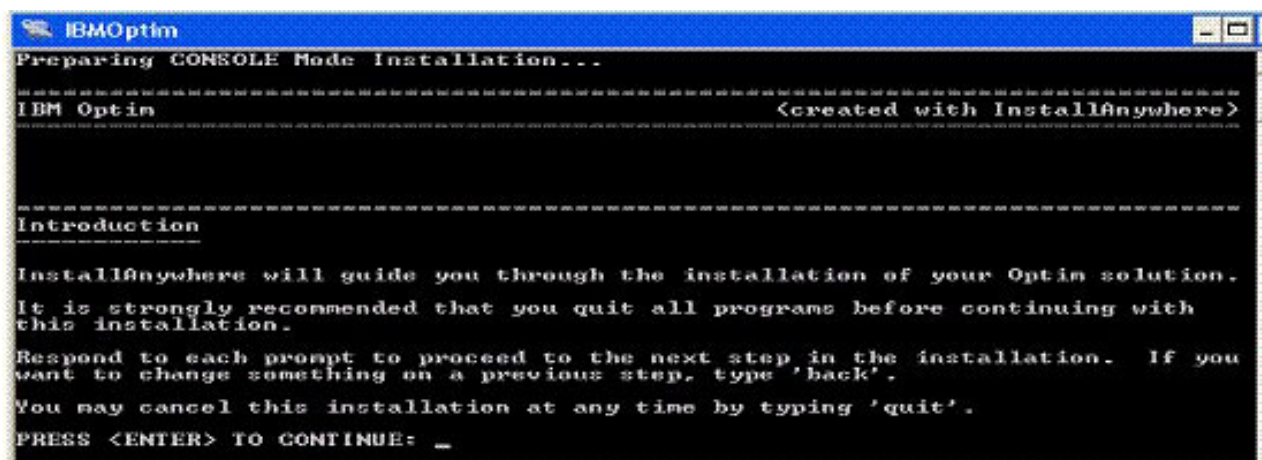
Notes:

- To postpone reading the Release_Notes file, clear the **View the Release Notes** check box before you click **Done**.
- To postpone the configuration of your installation, clear the **Launch the configuration program** check box before you click **Done**.

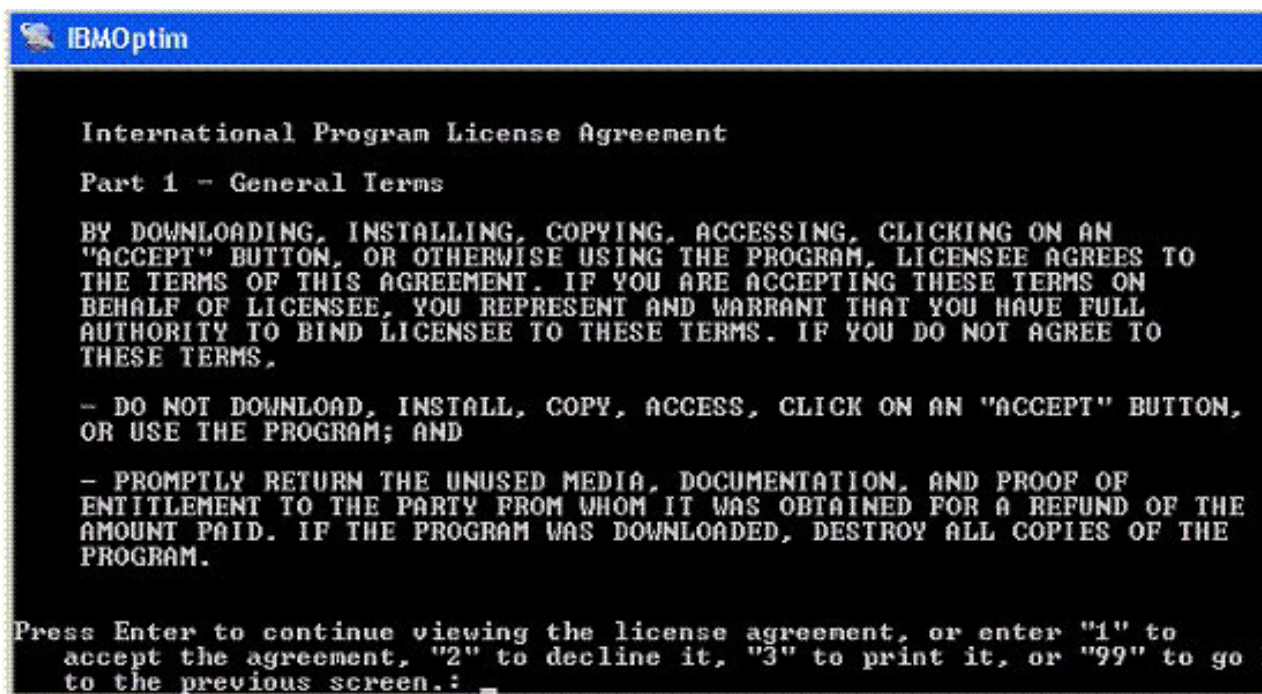
Console Install - Windows

In a Windows environment, you can install Optim from the console.

From the prompt, use this command: **IBMOptim.exe -i console**. This begins the installer extract process, which takes approximately 2 - 3 minutes. When the extract process completes, this screen displays:



Information about the standard installation displays. Use **Enter** to continue to the Software License Agreement:



This screen outlines the terms of the license agreement. You can choose:

- Enter** to view the license agreement
- 1** to accept the agreement
- 2** to decline it
- 3** to print the agreement
- 99** to go back to the previous screen

Accepting the license agreement displays the customer information screen:


```
IBMOptim
to the previous screen.: 2

You have chosen to decline the license agreement. Installation of the
Program will be terminated. If you are sure you want to decline the licen
agreement, enter "2" again to confirm. Otherwise, enter "1" to accept the
license agreement, or press Enter to continue reading the agreement.: 1

=====
Customer Information
=====

If using a temporary 30-day license, see Release Notes for information neede
complete this page. If you have a permanent license, an email from IBM cont
the license key and information needed to complete this page. You will appl
e license key at the time you configure your Optim solution. Direct all Opti
cense key requests and inquires to optkeys@us.ibm.com.

User Name: <DEFAULT: IBM_User>:
Company Name: <DEFAULT: >:
Company ID: <DEFAULT: >: _
```

Enter the User Name, Company Name, and Company ID.

Next, you are prompted to choose whether to install Optim for one user or all users:

```
IBMOptim

=====
Customer Input
=====

Install this application for:

->1- Anyone who uses this computer <all users>
   2- Only for me <IBM_USER>

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: _
```

Use 1 to install Optim for all users or 2 for one user only. The Choose Installation Set screen displays:

```
IBMOptim

=====
Choose Installation Set
=====

Please choose the Install Set to be installed by this installer.

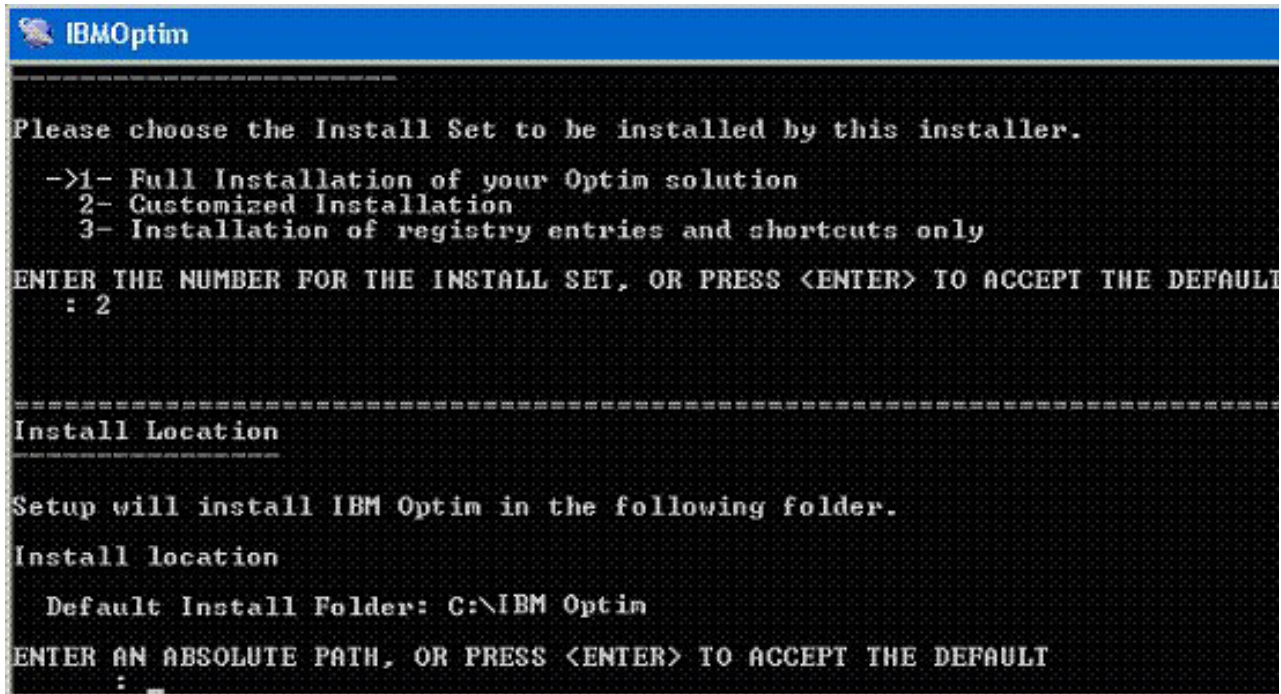
->1- Full Installation of your Optim solution
   2- Customized Installation
   3- Installation of registry entries and shortcuts only

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: _
```

Select the type of installation:

- 1 Full Installation (this is the default)
- 2 Customized Installation, which allows you to select Optim features manually
- 3 Registry entries and shortcuts. Use option 3 if Optim is already installed on a network and you want to access it from your workstation.

If you chose **Full Installation** or **Customized Installation**, the Install Location screen displays:



```
IBM Optim

Please choose the Install Set to be installed by this installer.

->1- Full Installation of your Optim solution
  2- Customized Installation
  3- Installation of registry entries and shortcuts only

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 2

=====
Install Location
=====

Setup will install IBM Optim in the following folder.

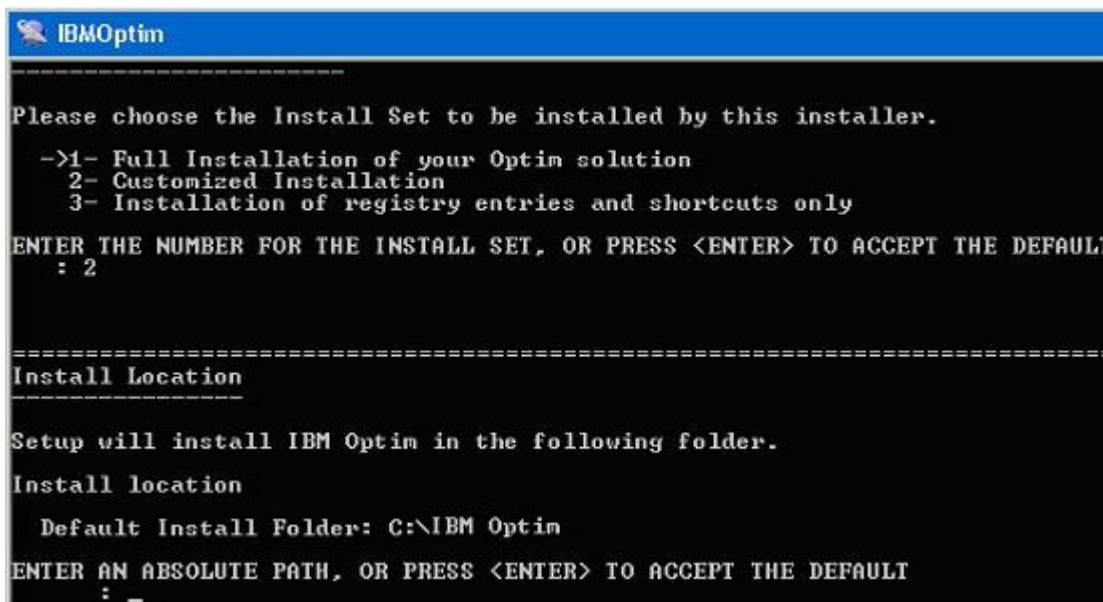
Install location

Default Install Folder: C:\IBM Optim

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 
```

You can press Enter to accept the default location or type the path name to the location you choose.

If you selected **Installation of registry entries and shortcuts only** the following screen displays:



```
IBM Optim

Please choose the Install Set to be installed by this installer.

->1- Full Installation of your Optim solution
  2- Customized Installation
  3- Installation of registry entries and shortcuts only

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 2

=====
Install Location
=====

Setup will install IBM Optim in the following folder.

Install location

Default Install Folder: C:\IBM Optim

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 
```

For the registry entries, enter the path to the folder where Optim is already installed.

The Component Selection screen displays only if you chose **Customized Installation** on the Choose Install Set screen:

```
IBM Optim

Install location

  Default Install Folder: C:\Program Files\IBM Optim
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:

=====
Component Selection
=====

Select the Product Features that you would like to install.

->1- Optim
->2- Optim Online Documentation
->3- Optim Archive ODBC Interface
->4- Optim ODM Interface
->5- Sample Files
->6- 5.x PST Directory Conversion Files

ENTER A COMMA-SEPARATED LIST OF NUMBERS REPRESENTING THE DESIRED CHOICES, OR
PRESS <ENTER> TO ACCEPT THE DEFAULT: _
```

The Component Selection screen lists all components available for installation. You can type a list of features, separated by commas or press **Enter** to select all.

If you chose **Full Installation** or if you selected **Optim ODM Interface** from the Component Selection screen, the next screen to display depends on whether ODM has been installed previously. If ODM was installed before this installation, the following screen displays:

```
IBM Optim

Install location

  Default Install Folder: C:\IBM Optim
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:

=====
Configure Open Data Manager Now?
=====

Open Data Manager (ODM) is distributed with a temporary 30-day license and,
continued use, requires a permanent license. If upgrading ODM from version 6
2.1 of your Optim solution, you must obtain a new permanent license but can
the 30-day license temporarily. If you are upgrading from a later version of
ur Optim solution, you can apply the license used previously. If you do not
access to the license file or wish to install ODM at a later time, select '
Copy the ODM Files'.

->1- Configure ODM Now
  2- Only Copy the ODM Files

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: _
```

Select 1 to configure ODM or 2 to copy the ODM files for installation later.

If ODM was not installed before this installation, the following screen displays:


```
IBMOptim
Setup will install IBM Optim in the following folder.
Install location
  Default Install Folder: C:\IBM Optim
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:

=====
Install and Configure Open Data Manager Now?
=====
Your Optim solution includes a 30-day trial license for Open Data Manager (ODM).
In order to use ODM after 30 days, you must have a permanent license. Direct
all ODM license key requests and inquiries to optkeys@us.ibm.com. If you do not
have access to the license file or wish to install ODM at a later time, select
'Only Copy the ODM Files'.
  ->1- Install and Configure ODM Now
      2- Only Copy the ODM Files
ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT::
```

Select 1 to install and configure ODM or 2 to copy the ODM files for installation later.

***9.) If you select 1 to install and configure ODM, the Open Data Manager (ODM) License Information screen displays:

```
IBMOptim
  ->1- Install and Configure ODM Now
      2- Only Copy the ODM Files
ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT::

=====
Open Data Manager (ODM) License Information
=====
ODM is distributed with a temporary license and requires a new permanent license
each time you upgrade the version of your Optim solution. If you have a valid
permanent license for ODM, Select 'Specify ODM License File'. If not select,
'Enable a 30-day Trial License'.
You may obtain a permanent license by submitting a request to IBM Optim Techni
cal Support.
  1- Specify ODM License File
  ->2- Enable a 30-day Trial License
ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT::
```

Select 1 to specify your ODM license file or 2 to enable a 30-day trial license.

The Specify ODM License File screen displays:

```
IBMOptim

ODM is distributed with a temporary license and requires a new permanent license each time you upgrade the version of your Optim solution. If you have a valid permanent license for ODM, Select 'Specify ODM License File'. If not select, enable a 30-day Trial License'.

You may obtain a permanent license by submitting a request to IBM Optim Technical Support.

    1- Specify ODM License File
    ->2- Enable a 30-day Trial License

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: 1

=====
Specify ODM License File
=====

Enter the fully qualified name to the ODM license file. If you do not have access to the file at this time, select 'Previous' and choose 'Enable a 30-day Trial License'.

Specify Open Data Manager <ODM> License File <DEFAULT: >: _
```

Enter the fully-qualified path for the ODM license file.

Next, the Choose Shortcut Folder screen displays:

```
IBMOptim

Setup requires the ODM license file to enable ODM features and functionality. If you do not have access to the license file, select 'Only Copy the ODM File'.

    ->1- Install and Configure ODM Now
        2- Only Copy the ODM Files

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: 2

=====
Choose Shortcut Folder
=====

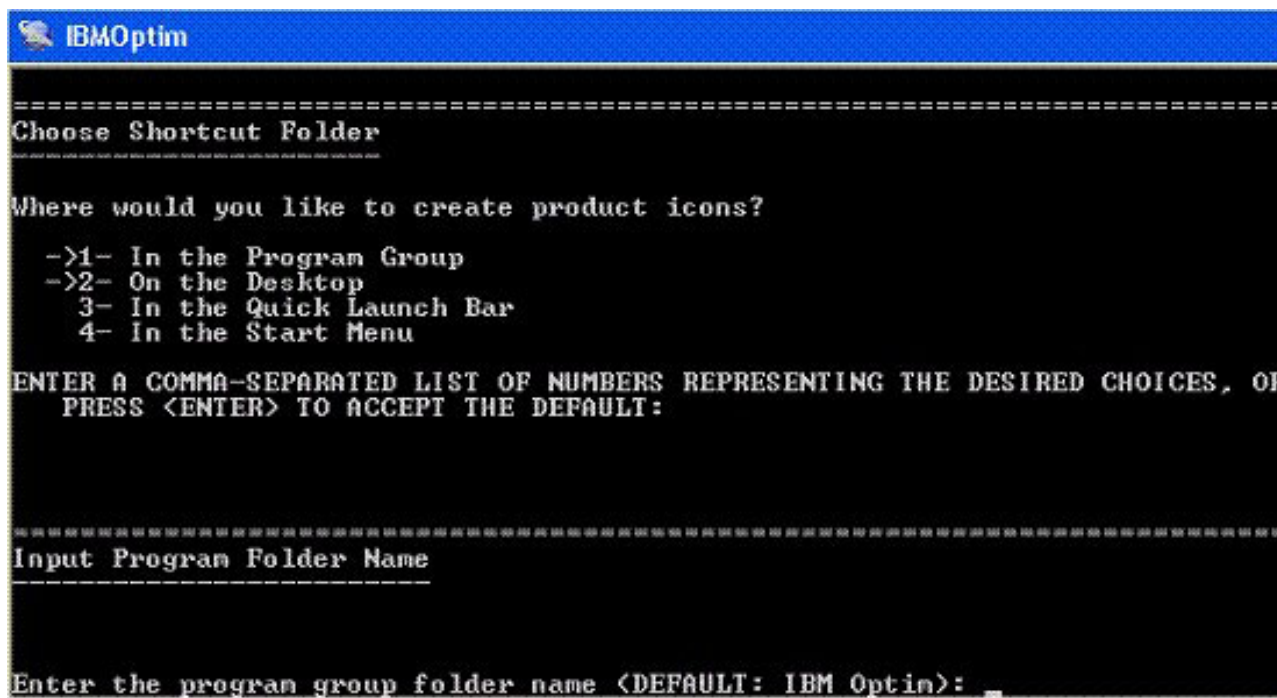
Where would you like to create product icons?

    ->1- In the Program Group
    ->2- On the Desktop
        3- In the Quick Launch Bar
        4- In the Start Menu

ENTER A COMMA-SEPARATED LIST OF NUMBERS REPRESENTING THE DESIRED CHOICES, OR PRESS <ENTER> TO ACCEPT THE DEFAULT: _
```

On the Choose Shortcut Folder screen, specify a folder to hold shortcut icons for Optim, Optim Configuration, and Optim Scheduler.

If you choose 1 - **In the Program Group** on the Choose Shortcut Folder screen, the Input Program Folder Name screen displays:



On the Input Program Folder Name screen, type the name of the program group folder in which the shortcut icons will be created. Optim will create the program group folder if it does not exist.

The Pre-Installation Summary screen displays next:

```
IBM Optim

=====
Pre-Installation Summary
=====

Please Review the Following Before Continuing:

Product Name:
  IBM Optim

Install Folder:
  C:\Program Files\IBM Optim

Shortcut Folder:
  C:\Documents and Settings\optimbld\Start Menu\Programs\IBM Optim

Install Set:
  Full Installation of your Optim solution

Product Features:
  Optim,
  Optim Online Documentation,
  Optim Archive ODBC Interface,
  Optim ODM Interface,
  Sample Files,
  5.x PST Directory Conversion Files

Java VM Installation Folder:
  C:\Program Files\IBM Optim\jre

Version:
  7.3.0

Build:
  3517

User Name:
  IBM_USER

Company name:
  Optim

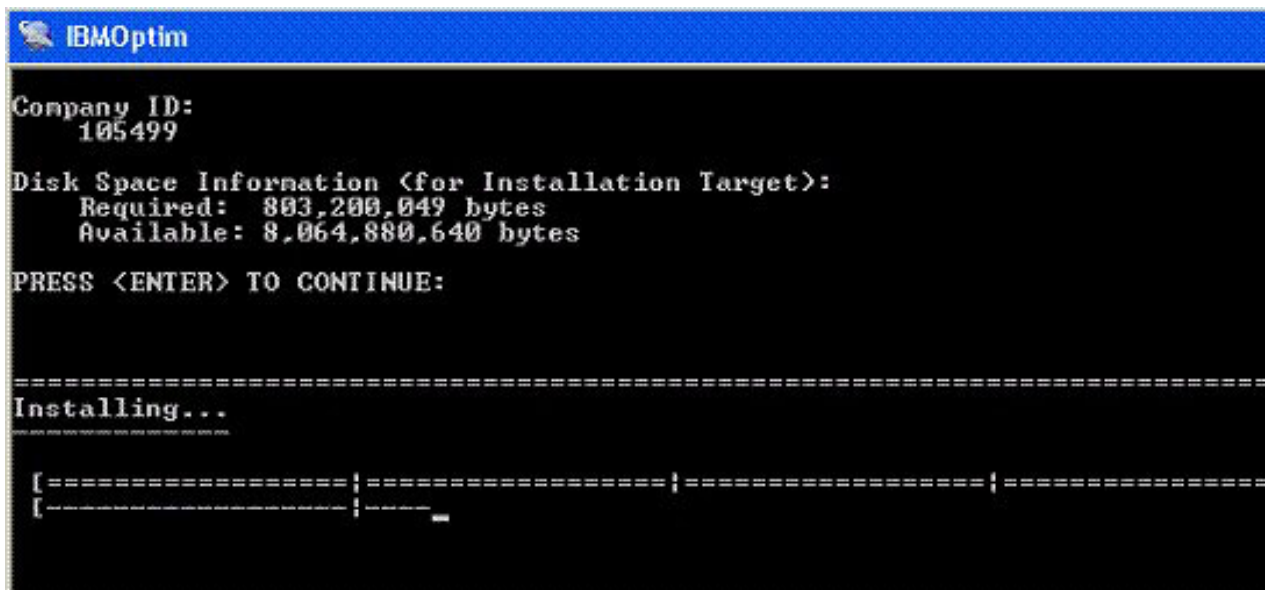
Company ID:
  105499

Disk Space Information (for Installation Target):
  Required: 803,200,049 bytes
  Available: 8,064,880,640 bytes

PRESS <ENTER> TO CONTINUE: _
```

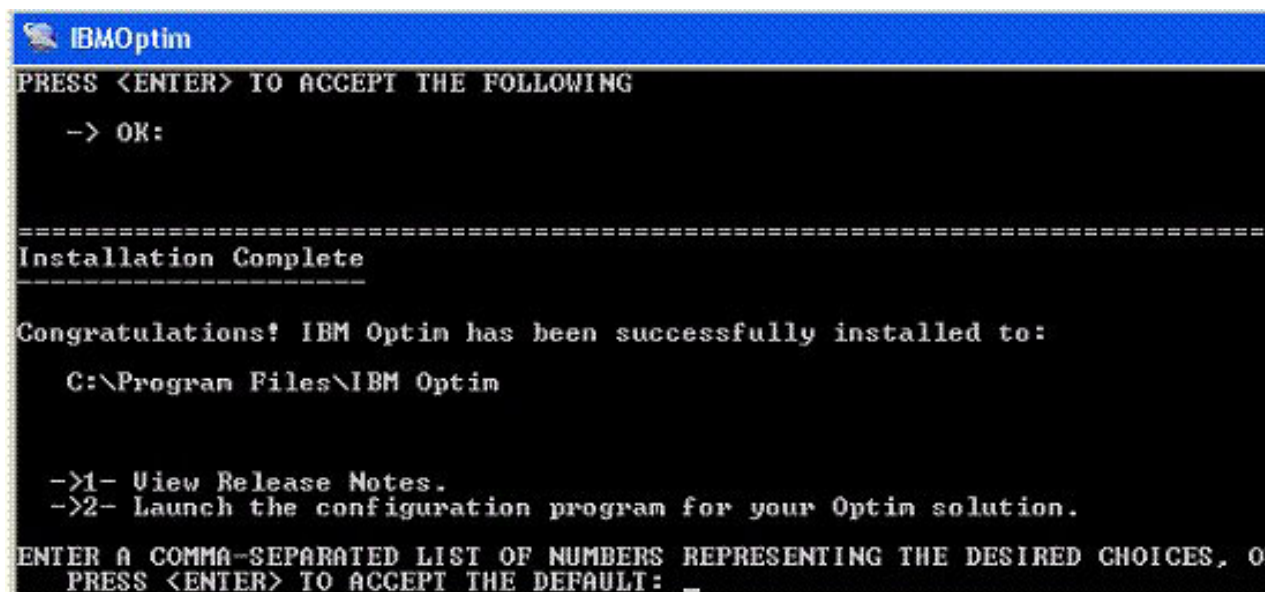
The Pre-Installation Summary screen displays all the settings for this installation for you to review. To modify any of the settings, type **BACK** at the prompt **PRESS <ENTER> TO CONTINUE:** to display previous installation screens and make the changes.

When you proceed with the installation, the Installing... screen displays:



The Installing... screen displays a progress bar as the installer copies the files.

Then the Installation Complete screen displays:



When the installation completes, you can choose to view the Release Notes[®] and launch the configuration program.

Silent Installer - Windows

In a Windows environment, you can install Optim using the silent installer.

The Optim installation includes the file **optim_installer.properties** in the same directory where **IBMOptim.exe** is located. To use the silent installer, open the **optim_installer.properties** file and make any modifications to the variables to customize it for your installation. These variables are:

INSTALLER_UI=SILENT (2. removed "CONSOLE")

Install using silent installer.

LICENSE_ACCEPTED=

Set this variable to TRUE to specify that the license agreement is accepted.

CUSTOMER_INFO_INPUT_1=username

Customer user name.

CUSTOMER_INFO_INPUT_2=companyname

Customer company name.

CUSTOMER_INFO_INPUT_3=companyid

Customer company ID number.

CHOSEN_INSTALL_FEATURE_LIST=

List of Optim features to be installed. Specify values in a list separated by commas. Values are:

Optim

Optim Online Documentation

Optim Archive ODBC Interface

Optim ODM Interface

Sample Files

5.x PST Directory Conversion Files

For example:

CHOSEN_INSTALL_FEATURE_LIST=Optim,Optim Online Documentation,Optim Archive ODBC Interface,
Optim ODM Interface,Sample Files,5.x PST Directory Conversion Files

INSTALL_APP_FOR=

Specify whether to install Optim for any user or for the current user only. To install Optim for all users, specify:

INSTALL_APP_FOR=any

To install Optim for the current user only, specify:

INSTALL_APP_FOR=me

USER_INSTALL_DIR =

The folder where Optim is to be installed.

USER_INSTALL_DIR=C:\\Program Files\\IBM Optim

USER_INPUT_ODM_INSTALL=**USER_INPUT_ODM_COPYONLY=**

Use these variables only if you included Optim ODM Interface in the CHOSEN_INSTALL_FEATURE_LIST=. Otherwise, remove these variables from the file. Specifies whether to install and configure ODM now.

To install and configure ODM now, specify:

USER_INPUT_ODM_INSTALL=1

USER_INPUT_ODM_COPYONLY=0

To copy ODM files for later installation, specify:

USER_INPUT_ODM_INSTALL=0

USER_INPUT_ODM_COPYONLY=1

USER_INPUT_ODM_ENABLE_TRIAL=**USER_INPUT_ODM_SPECIFY_LICENSE=**

Use these variables only if :

you included Optim ODM Interface in the CHOSEN_INSTALL_FEATURE_LIST=

AND

you specified USER_INPUT_ODM_INSTALL=1 to install and configure ODM now.

Otherwise, remove these variables from the file. Specifies the type of license for ODM.

To specify the ODM license file:

```
USER_INPUT_ODM_ENABLE_TRIAL=0  
USER_INPUT_ODM_SPECIFY_LICENSE=1
```

To enable a 30-day trial license for ODM:

```
USER_INPUT_ODM_ENABLE_TRIAL=1  
USER_INPUT_ODM_SPECIFY_LICENSE=0
```

USER_SHORTCUT_NEW_PRG_MENU=

Create shortcut icons in a new program group. Specify:

```
USER_SHORTCUT_NEW_PRG_MENU=1
```

Use either USER_SHORTCUT_NEW_PRG_MENU= or USER_SHORTCUT_EXST_PRG_MENU=, do not specify both.

USER_SHORTCUT_EXST_PRG_MENU=

Create shortcut icons in an existing program group. Specify:

```
USER_SHORTCUT_EXST_PRG_MENU=1
```

Use either USER_SHORTCUT_NEW_PRG_MENU= or USER_SHORTCUT_EXST_PRG_MENU=, do not specify both.

USER_SHORTCUTS=

Fully-qualified path for the directory in which to create shortcut icons. Specify:

```
USER_SHORTCUTS=C:\Documents and Settings\All Users\StartMenu\Programs\IBM Optim
```

Specify USER_SHORTCUTS= if you used either USER_SHORTCUT_NEW_PRG_MENU= or USER_SHORTCUT_EXST_PRG_MENU=.

USER_SHORTCUT_DESKTOP=

Create shortcut icons on the desktop. Specify:

```
USER_SHORTCUT_DESKTOP=1
```

USER_SHORTCUT_QCK_LAUNCH_BAR=

Create shortcut icons on the quick launch bar. Specify:

```
USER_SHORTCUT_QCK_LAUNCH_BAR=1
```

USER_SHORTCUT_START_MENU=

Create shortcut icons in the Windows Start menu. Specify:

```
USER_SHORTCUT_START_MENU=1
```

USER_INPUT_VIEW_REL_NOTES=

Display Release Notes when installation completes.

To display Release Notes:

```
USER_INPUT_VIEW_REL_NOTES=1
```

USER_INPUT_LAUNCH_CONFIG=

Launch Optim Configuration when installation completes.

To launch Optim Configuration:

```
USER_INPUT_LAUNCH_CONFIG=1
```

After you specify the variables in the optim_installer.properties file, use one of these commands to start the silent installer.

If the optim_installer.properties file is under the same directory as the IBMOptim.exe file, the file is renamed to installer.properties. Use this command:

```
IBMOptim.exe -i silent
```

If the `optim_installer.properties` file is in a different directory than the `IBMOptim.exe` file, use the command:

```
IBMOptim.exe -f directorypath\optim_installer.properties
```

where *directorypath* is the fully-qualified path to the directory for the `optim_installer.properties` file.

Configuration Overview

The first step in the Configuration process is to sign a valid exit (i.e., the Optim default exit or a user-supplied exit). After you do that, the Configuration program will create the Optim Directory, establish connectivity to databases for Optim, and perform other maintenance tasks.

The remainder of this manual describes the Configuration program and Tasks and explains how to:

- Configure the First Workstation, which includes creating the Optim Directory and associated DB Aliases, configuring options, and exporting registry data.
- Configure Additional Workstations, which includes importing registry data, creating a registry entry, and specifying a Product Configuration File.
- Configure the Optim Server.
- Use other commands available from the **Tasks** menu.
- Initialize and enable Optim Security, which includes Archive File Security, Functional Security, and Object Security.

Chapter 3. Signing an Optim Exit

Optim includes a mechanism that allows you to use a custom exit to apply an additional layer of security to Optim, beyond the extensive security already included in the product, to meet any security requirements mandated by your company or government regulations. This additional security layer is accomplished through a client-supplied exit that identifies who can use Optim and the executables that each user can run.

Client-supplied exits are called user-supplied exits in Optim to differentiate them from the default exit supplied with Optim. The Optim default exit allows all requests by all users, within the security limitations defined for each user or user group using the security functionality included in Optim.

The default exit is intended for clients who do not need to use a user-supplied exit, although it may also be used temporarily until you create your own, customized exit. If you use the default exit, Optim user security functions as it did prior to release 6.5.

If you implement a user-supplied exit, that exit will augment the extensive security functionality already included in Optim.

Note: A user-supplied exit may also be used for other functions, such as managing user accounts, monitoring user activity, forcing inactive sessions to timeout, auditing product use, and overriding user authorization credentials.

Regardless of the exit you use (i.e., the default exit or your own exit), you must “sign” that exit before you can use Optim. After the exit is signed, Optim will invoke the exit at initialization and call it at various “exit points” in the program to determine whether Optim should continue with what it was about to do. An exit point is a point within a program at which an exit routine can take control to do some external function. The exit allows you to:

- See what is being done by a given user at various points in a program's logic,
- Ensure that the user's request meets your company standards, and
- Change the request, if needed, to pass your company standards or forbid the request altogether.

Optim will call the exit at each exit point to verify that the user's request meets your company standards, such as verifying that the user has permission to run a given executable. The first exit point occurs when the user launches Optim. If you use the exit to provide external security, that exit point determines whether the user has permission to access the product. If the user has the appropriate permissions, the user can continue; if not, Optim will terminate the user's session after displaying an appropriate error message. (See the *Optim Initialization Exit Programmer's Guide* for a complete list of the Optim exit points.)

Beginning with Optim release 6.5, a “signed” exit must exist to use Optim, whether the exit is the Optim default exit or a user-supplied exit. To sign an exit, you must enter the “company credentials” supplied to your organization when you received Optim. Your company credentials consist of your Optim-supplied company ID, Name, and Password. The Optim setup process will automatically request these credentials during installation, so you can sign an exit.

Note: If you have write access to the Optim bin directory and you have the appropriate company credentials, you can change from one exit to another at any time following installation by signing a new exit. You can change from using the default exit to a user-supplied exit (or vice versa), or you can change from one user-supplied exit to another. (If you are switching to user-supplied exit, you must compile, link, and copy that exit to the bin directory before you can sign it.)

The method of signing an exit in a Windows environment differs from the method used in a UNIX environment:

- In a Windows environment, the Optim Configuration program allows you to sign either exit (i.e., the default exit or a user-supplied exit). See “Signing an Exit in Windows” on page 51 for more information.
- In a UNIX environment, you can only sign the default exit during installation (i.e., during the Optim Setup program). If you want to sign a user-supplied exit, you must run an opmusegn script file following installation. (Another script file is available to revert to the default exit from a user-supplied exit, if needed.) See Appendix A, “Install and Configure the Server under UNIX or Linux,” on page 293 for detailed information on signing an exit in UNIX.

The Optim default exit is delivered unsigned to ensure:

- it is signed by a user with the appropriate company credentials, and
- the person signing the default exit is authorized to make the decision to use that exit, as opposed to a user-supplied exit. This is important because the default exit returns a “continue” code at every exit point. Thus, if the default exit was delivered signed, it would bypass any security checks and additional functionality included your user-supplied exit (assuming you already created one).

Writing Your Own Exit

If you want to employ the additional functionality available via a user-supplied exit, you must write your own exit.

1. Determine what you want the exit to do.
2. Determine which Optim *exit points* that call your exit are suitable for what you want to do.
3. Write the appropriate code to respond to those exit points within your user-supplied exit.

After you create an exit, you must compile, link, and copy the exit to the bin directory in which Optim is installed, before you can sign it. The same is true when you modify an exit. If a signed exit does not exist, you cannot use Optim. (See the *Optim Initialization Exit Programmer’s Guide* for more information on creating a user-supplied exit.)

Prerequisites to Signing a User-Supplied Exit

If you want to use your own, user-supplied exit, the following requirements apply.

- The exit load linked module name must be appropriate for your platform, as shown below:

Platform	Linked Module File Name
Windows	opmexit.dll
AIX, Solaris, Linux	libopmexit.so
HPUX	libopmexit.sl

- You must copy the exit file to the bin directory *before* you run the Configuration program in Windows.
- The exit file must exist in the bin directory and be signed on *every* Optim installation. Thus, each time you install Optim in a directory, a signed exit must exist in the bin directory.

Signing Required After Each Install

Unlike the Optim Security feature, which you must initialize once per Optim Directory, you must sign an exit *each time you install* Optim on a machine. Moreover, when you upgrade to a new Optim release, you must sign a valid exit for each Optim installation, before you can use Optim. (If you install a new version of Optim over a previous version, you have to recopy your exit into the bin directory and resign it, or sign the default exit.) The same is true if you reinstall Optim.

Anytime you replace a signed exit executable (i.e., `opmexit.dll`, `libopmexit.so`, or `libopmexit.sl`) with another version of that exit, you must sign the updated exit to use Optim. This is true, even if the executable was previously signed (e.g., in another installation or copied from a backup of a signed exit).

Signing an Exit in Windows

In Windows, you can use the Configuration program to sign either the default exit or a user-supplied exit, although you may also use the `pr0sign` program to sign either exit.

Note: To use Optim, you must sign an exit for each installation of Optim on a Windows workstation or server. This is also true if you installed multiple copies of Optim on a single machine. Moreover, if you copy a signed exit from one installation to another, you must sign the exit again at the target installation.

Signing an Exit during Configuration

To sign an exit in Windows, you must run the Optim Configuration program. You also must run the Configuration program to switch from using the default exit to a user-supplied exit (or vice versa).

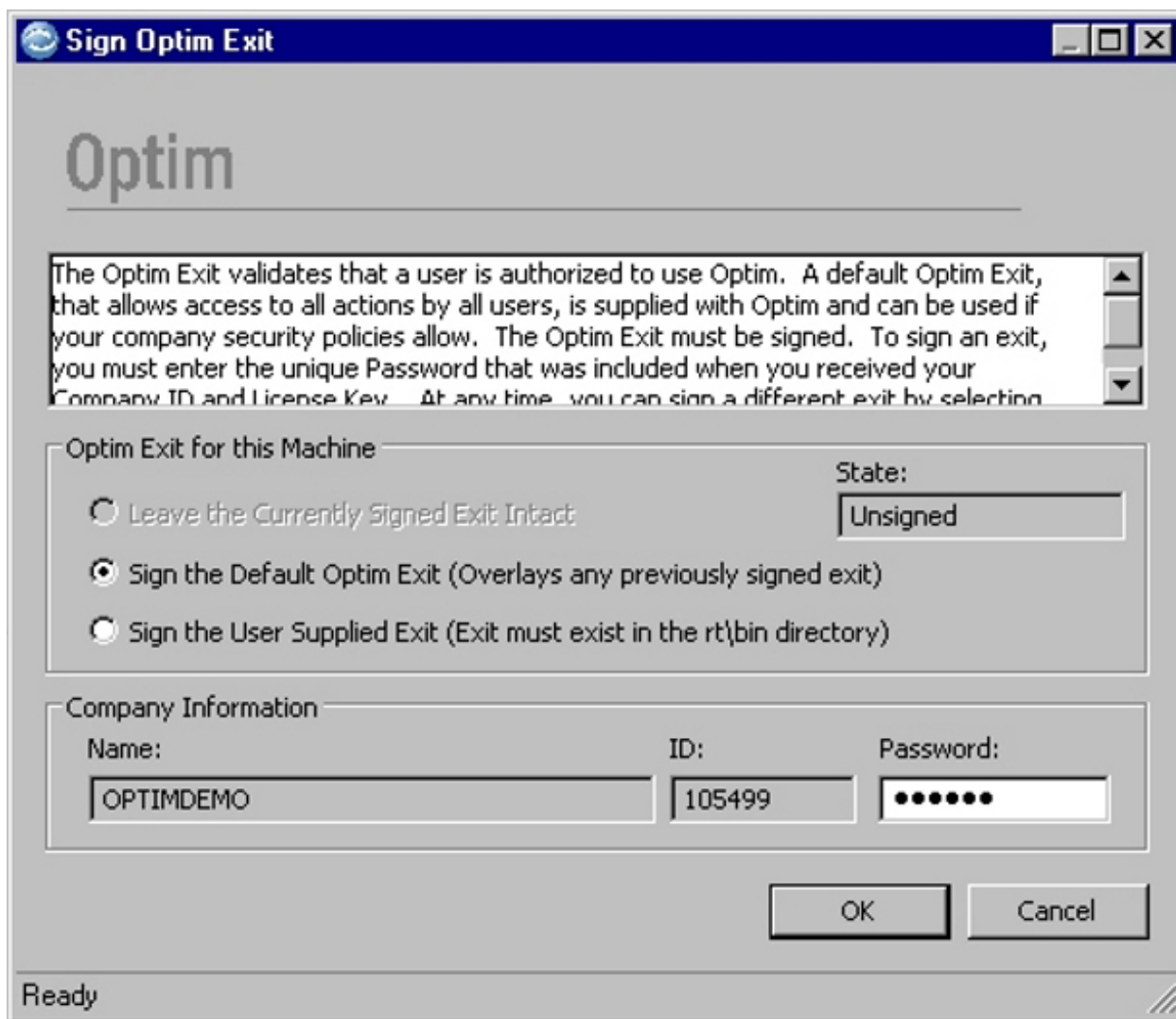
When you install Optim, you can launch the Configuration program and display the dialog used to sign an exit by selecting the **Launch Optim configuration** check box on the Install Complete dialog, as described in “Installation Complete” on page 34.

Before you run the Configuration program, confirm that no other Optim processes are running; if other processes are running, shut them down or wait for them to finish before you run the Configuration program.

If you want to sign a user-supplied exit, you must compile and create the load library `opmexit.dll`. You must then copy the DLL to the `rt/bin` directory *before* you run the Configuration program.

Note: If you use the Configuration program to sign a user-supplied exit, Optim will immediately call that exit to authorize all future requests. This means that the new exit could theoretically prohibit the current user from executing any other requests, such as running the Configuration program, if that user does not have permission to do so in the new exit.

Each time you execute the Configuration program, it checks for the existence of a signed exit. If one is not found, the Sign Optim Exit dialog displays, and you must sign either the default Optim exit or a user-supplied exit to use Optim. (See “The Sign Optim Exit Dialog” on page 54 for further information.)

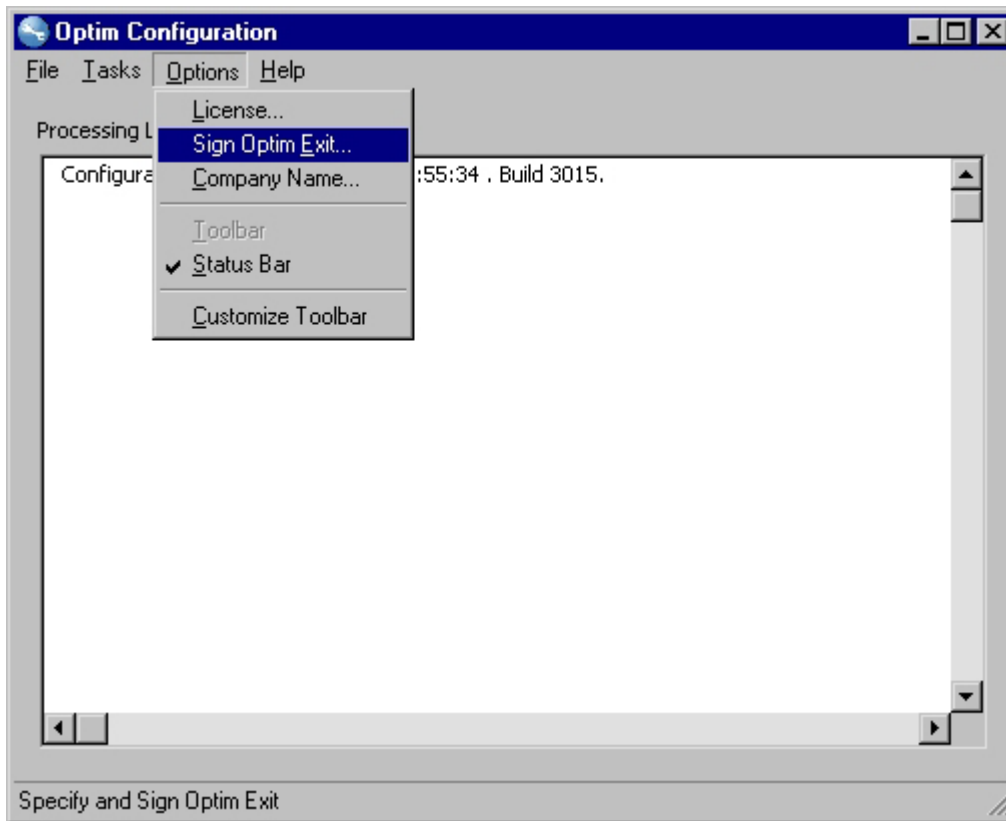


If you click **Cancel** without signing an exit, Optim displays a warning message and the Configuration program terminates.

Note: If you did not previously provide a company Name and ID, the Specify Company Name dialog will appear before the Sign Optim Exit dialog. See "Specifying a Company Name and ID" on page 56 for more information.

Changing a Signed Optim Exit

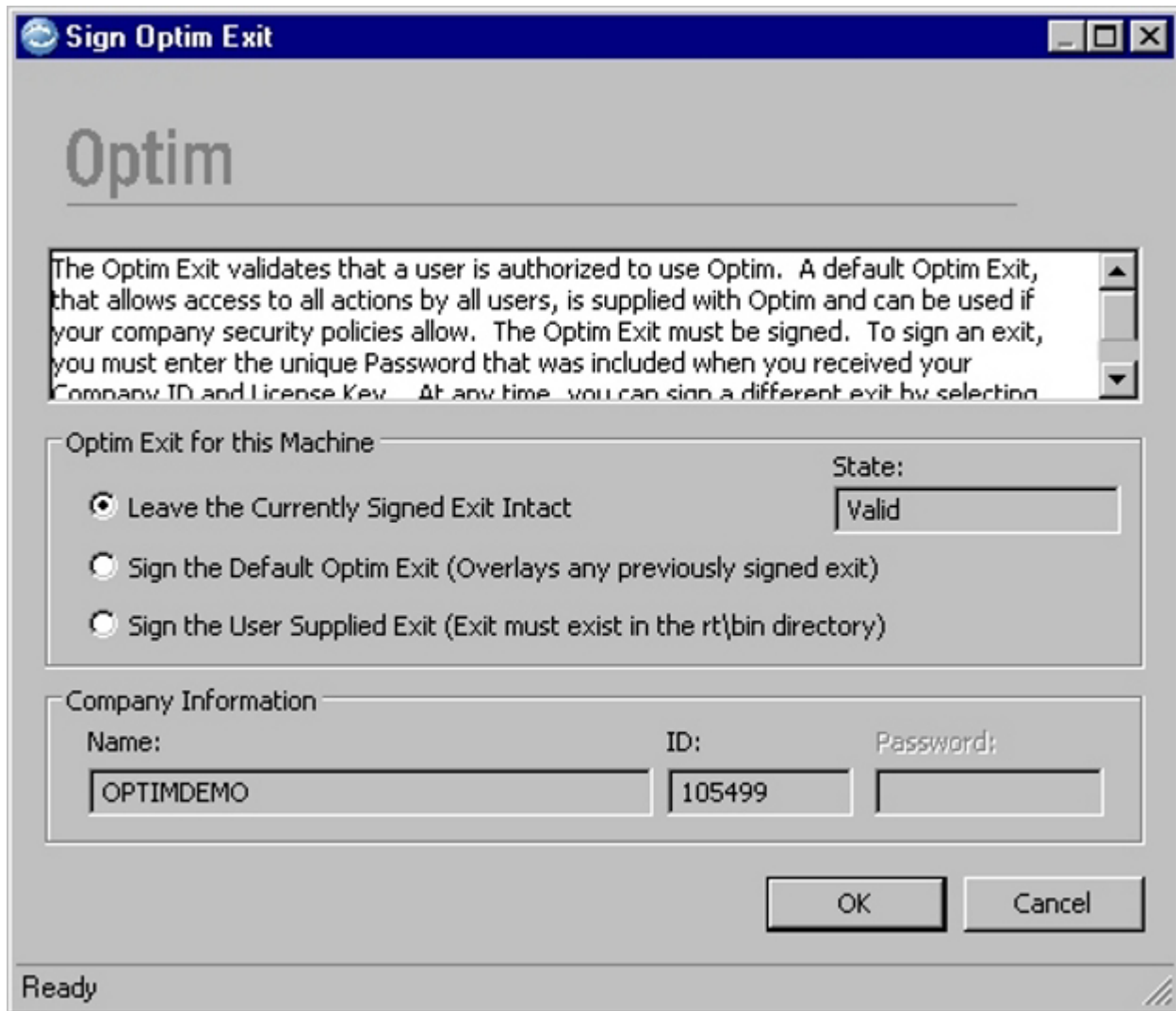
After you sign an exit, you can sign a different exit or switch between the default exit and a user-supplied exit by selecting **Options** → **Sign Optim Exit** from the Configuration main window.



Selecting this option displays the Sign Optim Exit dialog, described in “The Sign Optim Exit Dialog” on page 54.

The Sign Optim Exit Dialog

Optim will automatically display the Sign Optim Exit dialog anytime you execute the Configuration program if a signed exit does not exist. (You also can manually display that dialog by selecting **Options** → **Sign Optim Exit** from the Configuration main window.)



The Sign Optim Exit dialog includes the following options.

Optim Exit for this Machine

There are three options under the heading **Optim Exit for this Machine**. Click on the option you want to use.

- **Leave the Currently Signed Exit Intact**

Use this option to leave the currently signed exit in place. You must have permission to execute the Configuration program to use this option. This option is available only if an exit was previously signed, in which case the word **Valid** will appear to the right of this option, under **State**.

If you select this option, the **Password** field is disabled and clicking **OK** or **Cancel** has the same effect (i.e., the existing exit remains in effect.)

This is the default option when the **State** entry is **Valid**.

- **Sign the Default Optim Exit**

Use this option to sign the *default* Optim exit. The default exit allows all requests by all users, within the security limitations defined for each user or user group via the security functionality included in Optim. If you select this option, you must specify your company Password to sign the default exit.

Signing the default exit will overlay any previously signed exit. If you are replacing a user-supplied exit, you must have permission in that exit to sign the new exit.

This is the default option when the **State** entry is **Unsigned**.

- **Sign the User Supplied Exit**

Use this option to sign a user-supplied exit. (See the *Optim Initialization Exit Programmer's Guide* for information on how to write an exit.) If you select this option, you must specify your company Password to sign the user-supplied exit.

Before you sign a user-supplied exit, you must copy it to the `rt/bin` directory where you installed Optim. This step will overlay any previously signed exit, rendering Optim unusable until you sign the new exit.

State

This display-only entry identifies the current state of your exit.

Code	Meaning
Unsigned	A signed exit does not exist or was not found. This is the standard status after the initial installation of an Optim release. You must sign a valid exit to use Optim.
Valid	A signed exit exists. No action is required in response to this status, unless you want to use a different exit.
Corrupt	The existing, signed exit was not the one expected by Optim. The two most common reasons for this status are: <ul style="list-style-type: none">• an install was done on top of an existing install that already contained a signed exit• the existing exit was tampered with. If you receive this status, you must resign a valid exit to use Optim.
Not Authorized	The current user does not have permission to access the Configuration program, so Optim will terminate the user's session after displaying an appropriate error message. If the user requires access to the Configuration program, contact your Optim Administrator to have the user's access permissions changed.

Company Information

There are three items listed under this heading: **Name**, **ID**, and **Password**. Each company is assigned a unique company Name, ID, and Password when it receives Optim. These entries are your company credentials for accessing Optim.

When you install Optim on a Windows machine, you normally enter your company Name and ID during setup, although this may not be the case in some instances. See "Specifying a Company Name and ID" on page 56 for more information.

Name

Optim will automatically display the company name assigned to your organization here. (Your Optim-supplied name may not match the spelling or punctuation used in your company's actual name.) You cannot change this entry.

ID

Optim will automatically display the company ID assigned to your organization here. You cannot change this entry.

Password

You must specify the Password assigned to your company to sign any exit, whether it be the Optim default exit or a user-supplied exit. This entry is case-sensitive, and you must enter it in the format provided to you when you received Optim.

This entry is required, unless you selected the **Leave the Currently Signed Exit Intact** option.

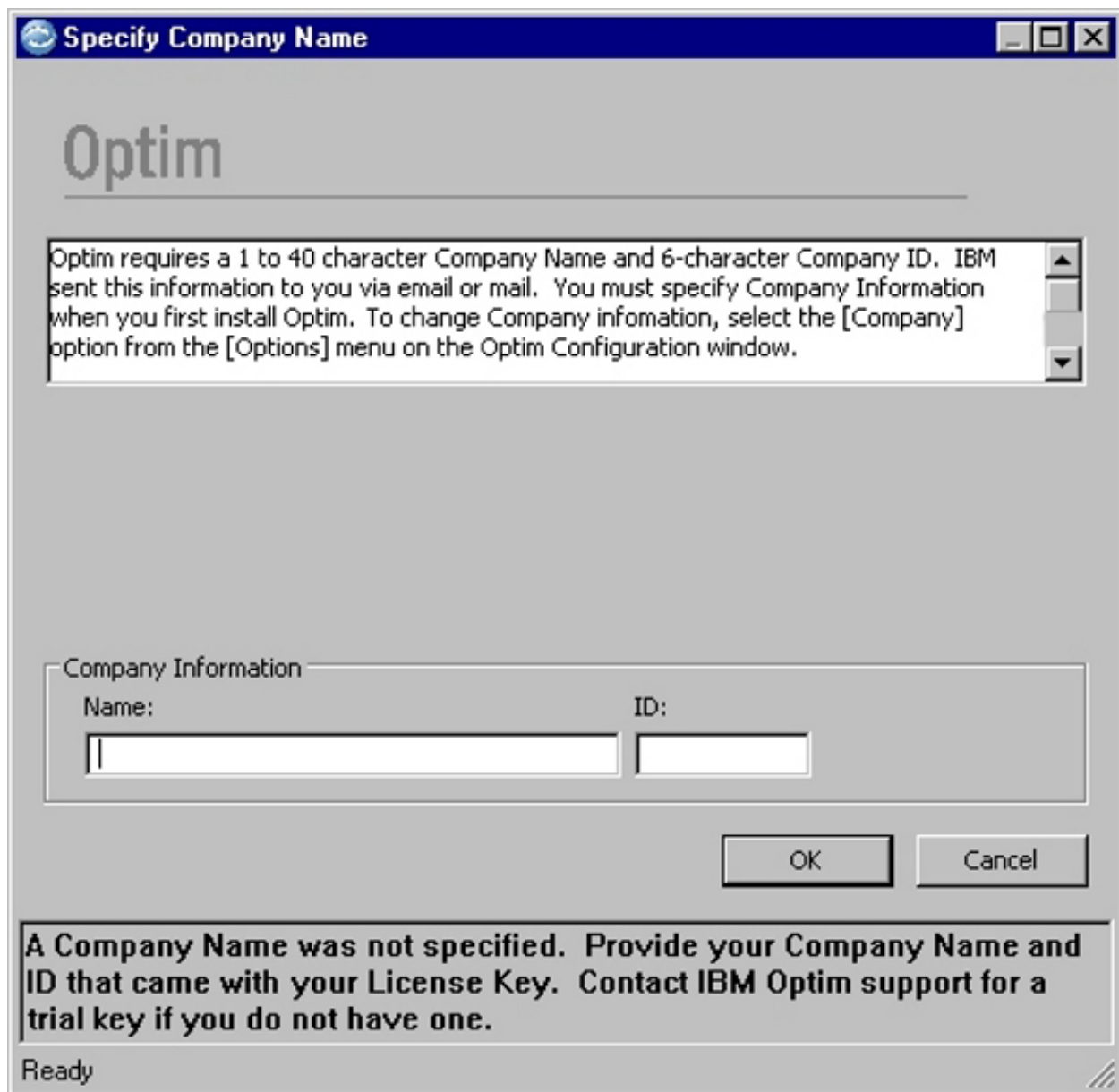
Click OK to Sign the Selected Exit

After you specify your company password to sign an exit, click **OK** to complete the signing process and close the Sign Optim Exit dialog.

Note: You must sign a valid exit to use Optim. If you click **Cancel**, instead of **OK**, and a signed exit does not already exist, Optim will display a warning message and the Configuration program will terminate.

Specifying a Company Name and ID

The first time you execute the Configuration program on a workstation or server, the Specify Company Name dialog will appear if you did not previously specify your company Name and ID. In that case, this dialog will appear before the Sign Optim Exit dialog, because a company Name and ID are required to sign an exit.



The image shows a Windows-style dialog box titled "Specify Company Name". At the top left is a small globe icon. The title bar is dark blue with the text "Specify Company Name" in white. On the right of the title bar are standard window controls (minimize, maximize, close). Below the title bar, the word "Optim" is displayed in a large, light gray font. A text box contains instructions: "Optim requires a 1 to 40 character Company Name and 6-character Company ID. IBM sent this information to you via email or mail. You must specify Company Information when you first install Optim. To change Company information, select the [Company] option from the [Options] menu on the Optim Configuration window." Below this, a section titled "Company Information" contains two input fields: "Name:" and "ID:". The "Name:" field is a long text box, and the "ID:" field is a shorter text box. To the right of these fields are "OK" and "Cancel" buttons. At the bottom, a message box states: "A Company Name was not specified. Provide your Company Name and ID that came with your License Key. Contact IBM Optim support for a trial key if you do not have one." The status bar at the bottom left says "Ready".

Specify Company Name

Optim

Optim requires a 1 to 40 character Company Name and 6-character Company ID. IBM sent this information to you via email or mail. You must specify Company Information when you first install Optim. To change Company information, select the [Company] option from the [Options] menu on the Optim Configuration window.

Company Information

Name: ID:

OK Cancel

A Company Name was not specified. Provide your Company Name and ID that came with your License Key. Contact IBM Optim support for a trial key if you do not have one.

Ready

If this dialog displays, you must specify your company Name and ID and click **OK** to proceed with the signing process. Both entries are case-sensitive, and you must enter both entries in the format provided to you when you received Optim.

Chapter 4. Configuration Window and Menus

This chapter describes the main window for the Optim Configuration program and certain general configuration functions. The principal configuration tasks are described in the following chapters.

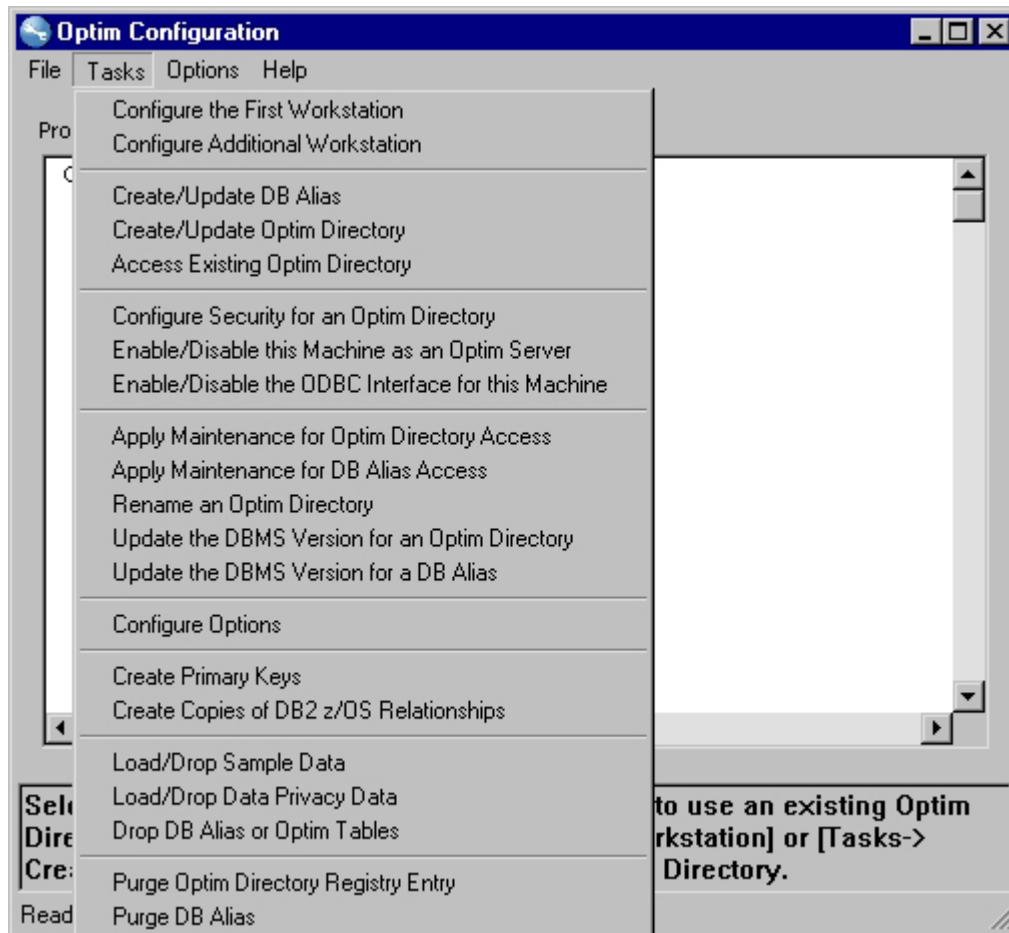
Note: Before you do any configuration functions, you must sign the Optim default exit or a user-supplied exit of your own creation. You cannot continue with the Configuration process or use Optim until you sign a valid exit using the Sign Optim Exit dialog, as described in Chapter 3, “Signing an Optim Exit,” on page 49

DBMS Terms

Optim supports several database management systems. Terms used in a configuration dialog reflect the DBMS for the database that is being configured. For example, for an Oracle database, a configuration dialog may refer to *Packages* used to access database tables. However, for a Sybase ASE or SQL Server database, the same dialog refers to *Procedures*, and for a DB2 database it refers to *Plans*. Varying terms are noted in the discussion of a dialog.

Main Window and Menus

The Configuration main window includes the menu bar, toolbar, Processing Log, message bar, and status bar.



Note: When the Configuration Assistant or other dialogs are open, the main window is inactive and cannot be used except to view the most recent entries in the Processing Log.

Main Window

The Configuration main window includes the following components.

Menu bar

The menus for the Configuration program.

Toolbar

Buttons to select Online Help Contents or What's This Help.

Processing Log

A list of actions performed by the Configuration program.

Message bar

Basic information to help you select a task or know the outcome of a selected task.

Status bar

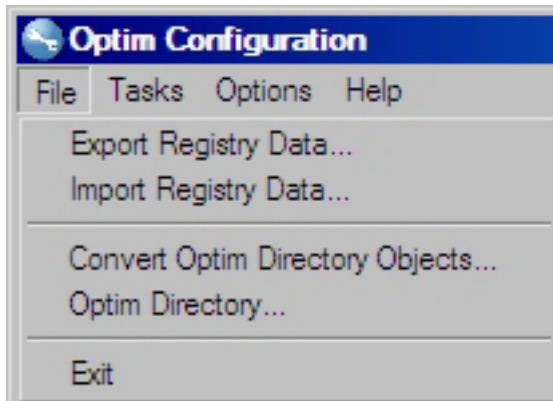
Messages about a specific command or the current action. The status bar appears at the bottom of the main window and each dialog.

Menus

To use the Configuration program, select a command from any menu on the main window menu bar.

File Menu

The **File** menu in the main window lists commands to view or edit information regarding the Optim Directory, convert Optim Directory objects when upgrading, or exit the Configuration program. In addition, you can select commands to export or import registry data for a particular Optim Directory.



Select any of the following commands:

Export Registry Data

You can save time by exporting Optim Directory registry data to a file and saving the file to a directory that is easily accessible for configuring other workstations. While configuring the first workstation, you are prompted to export registry data, or you can select **Export Registry Data** from the **File** menu on the Configuration main window. See “Export Registry Data” on page 129 for more information.

Import Registry Data

To configure a workstation, you can import Optim Directory registry data and the Product License Key from a file of information exported from another workstation. You are prompted to import Optim Directory registry data when configuring each workstation after the first, or you can select **Import Registry Data** from the **File** menu on the Configuration main window. See “Import Registry Entries” on page 132 for more information.

Convert Optim Directory Objects

All Optim Directories created prior to version 6.0 of Archive and the Relational Tools, require a conversion to be compatible with later versions. Additionally, any Optim Directory created prior to Optim version 6.2 on an SQL Server database must be converted. See Appendix G, “Converting PST and Optim Directory Objects,” on page 485 for more information.

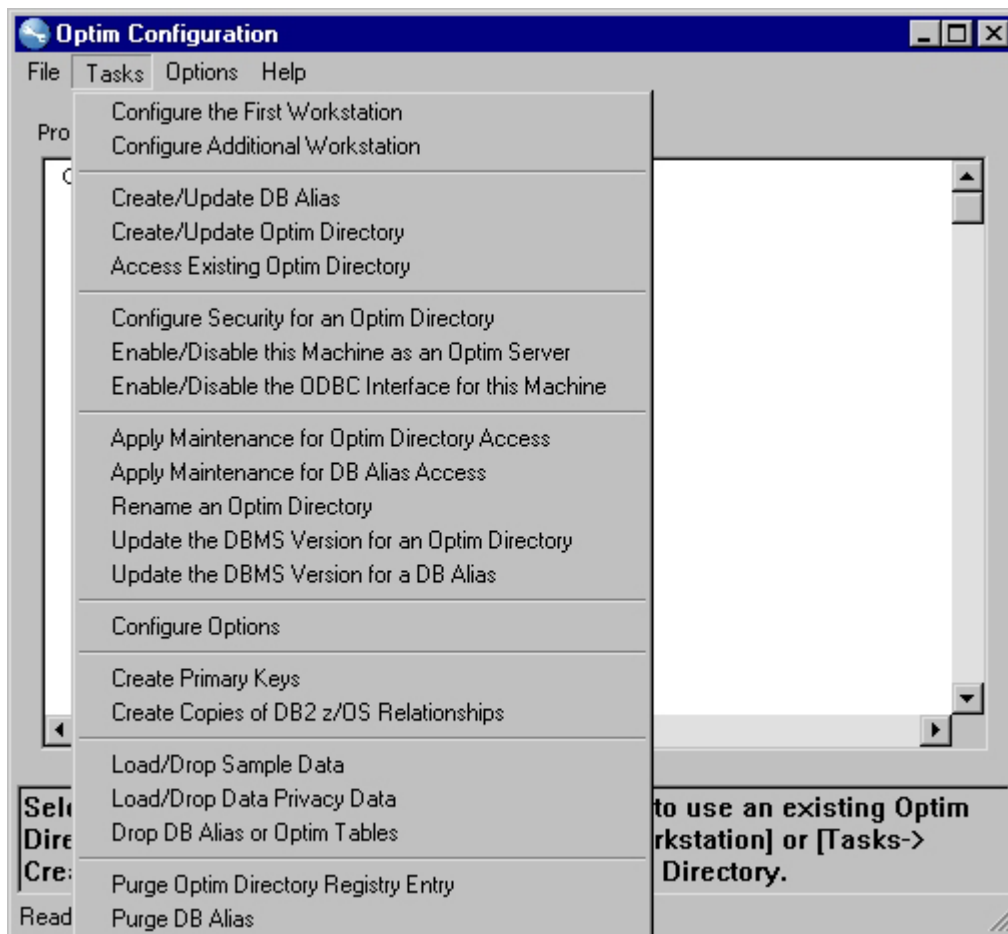
Optim Directory

Connect to or disconnect from an Optim Directory, or modify a connection.

Exit Close the Configuration main window.

Tasks Menu

Select commands from the **Tasks** menu to configure and maintain the Optim environment. You can choose to perform these tasks at any time.



Select any of the following commands:

Configure the First Workstation

Confirm the Product License Key after installation and create the components shared by all workstations. Typically, all users on all workstations share one Product Configuration File that contains the Product Options for your site, although you may have more than one of each. See “Configure the First Workstation” on page 71

Configure Additional Workstation

Configure each additional workstation on which Optim is installed to share components created when the first workstation was configured. You may also configure Personal Options for the workstation. See “Configure Additional Workstation” on page 131.

Create/Update DB Alias

A DB Alias is required for each database to which Optim connects. Use this command to create any DB Aliases that were not created when configuring the first workstation or to update existing DB Aliases. See “Create/Update DB Alias” on page 170.

Create/Update Optim Directory

In most cases, your site will use a single Optim Directory that is created when the first workstation is configured. Use this task as a step in relocating the Optim Directory or when an upgrade to Optim requires a new Directory. See “Create/Update Optim Directory” on page 173.

Access Existing Optim Directory

A workstation must have a Windows Registry entry for the Optim Directory. This registry entry is created when the workstation is configured, however, additional entries are required for any additional Directories that may be accessed by the workstation. See “Access Existing Optim

Directory” on page 173. Use this task, which replicates the steps described in “Create Registry Entry” on page 134 to create additional registry entries.

Configure Security for an Optim Directory

You can initialize Optim Security using the Configure the First Workstation, Create/Update Optim Directory, and Configure Options tasks; however, you must use Configure Security for an Optim Directory task to both initialize Optim Security and enable the security features or to update your security settings. See “Configure Security for an Optim Directory” on page 173.

Enable/Disable this Machine as an Optim Server

Use this task to change the Optim Server status of a machine. See “Enable/Disable this Machine as an Optim Server” on page 180.

Enable/Disable the ODBC Interface for this Machine

Use this task to enable or disable the ODBC interface access to Archive Files for a previously configured workstation. See “Enable/Disable the ODBC Interface for this Machine” on page 181.

Apply Maintenance for Optim Directory Access

Generally, you must apply maintenance for Optim Directory access to refresh or update the packages, plans, or procedures needed to access the Optim Directory tables, when you upgrade Optim or if you drop the Optim Directory for some reason. See “Apply Maintenance for Optim Directory Access” on page 181.

Apply Maintenance for DB Alias Access

You must apply maintenance for DB Alias access when upgrading Optim or to refresh packages, plans, or procedures for database access. See “Apply Maintenance for DB Alias Access” on page 183.

Rename an Optim Directory

To rename an Optim Directory, you must replace the name in the Directory itself and in the Windows registry on each workstation that accesses the Directory. Use this task to change the name in the Optim Directory and workstation registry or, once the Optim Directory is changed, to rename a registry entry or register the renamed Directory on a workstation. See “Rename an Optim Directory” on page 190.

Update DBMS Version for an Optim Directory

Use this task when the database for the Optim Directory has been upgraded to a new version. See “Update DBMS Version for an Optim Directory” on page 198.

Update DBMS Version for a DB Alias

Use this task when a database has been upgraded. See “Update DBMS Version for a DB Alias” on page 201.

Configure Options

Typically, the Product Configuration File and the Personal Options registry entries are created when you configure the workstations. Use this task to modify these options. See “Configure Options” on page 207.

Create Primary Keys

Optim Primary Keys are usually created when you configure a workstation or create a DB Alias. After you install Optim, you can use this task to create primary keys for tables added to the database. See “Create Primary Keys” on page 208.

Create Copies of DB2 z/OS Relationships

Use this task to copy DB2 z/OS relationships into the Optim Directory, which reduces the run time when accessing DB2 z/OS tables. See “Create Copies of DB2 z/OS Relationships” on page 209.

Load/Drop Sample Data

Sample tables are distributed with Optim and are generally loaded when you configure a workstation, but you can use this task to load or refresh the sample data independently. See “Load/Drop Sample Data” on page 210.

Load/Drop Data Privacy Data

Data privacy data tables are available to clients who have an Optim Data Privacy License. These tables are generally loaded when you configure a workstation (if you have a Data Privacy License), but you can use this task to load or refresh them. See “Load/Drop Data Privacy Data” on page 211.

Drop DB Alias or Optim Tables

Use this task to drop a DB Alias or an Optim Directory. See “Drop DB Alias or Optim Tables” on page 211.

Purge Optim Directory Registry Entry

You may, at times, want to remove workstation access to an Optim Directory, without dropping the Directory or packages, plans, or procedures used to access that Directory or disable Optim for a workstation. Use this task to purge a workstation registry entry to accomplish these goals. See “Purge Optim Directory Registry Entry” on page 216.

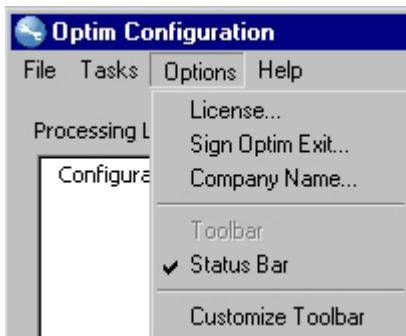
Purge DB Alias

You may want to purge a DB Alias when you drop a database or to make a database temporarily inaccessible to workstations using Optim. See “Purge DB Alias” on page 217.

Note: Many basic tasks are also available when you select **Configuration Assistant** from the **Help** menu. See “Configuration Assistant” on page 66 for details.

Options Menu

Use the **Options** menu to edit or view license or company name information, sign a user exit, customize the toolbar, and view or hide the toolbar or status bar by selecting either command from the menu. Select any of the following commands:



License

After the initial installation, you may need to change the license key. A new license key may be required, for example, to activate additional functions or increase the number of users or servers for Optim. Select **License** to display the Specify Product License Key dialog.

After you update the license key, you must store the key in the Optim Directory by connecting to the Directory.

Sign Optim Exit

Select this option to display the Sign Optim Exit dialog to sign and activate a new exit, whether it is the Optim default exit or a user-supplied exit.

Company Name

IBM generates a license key for a specific Company Name and Company ID. Select **Company Name** to display the Change Company Name dialog.

Toolbar

Display or hide the toolbar (a check mark indicates it is selected for display).

Status Bar

Display or hide the status bar (a check mark indicates it is selected for display).

Customize Toolbar

Open the Customize Toolbar dialog to add or remove buttons.

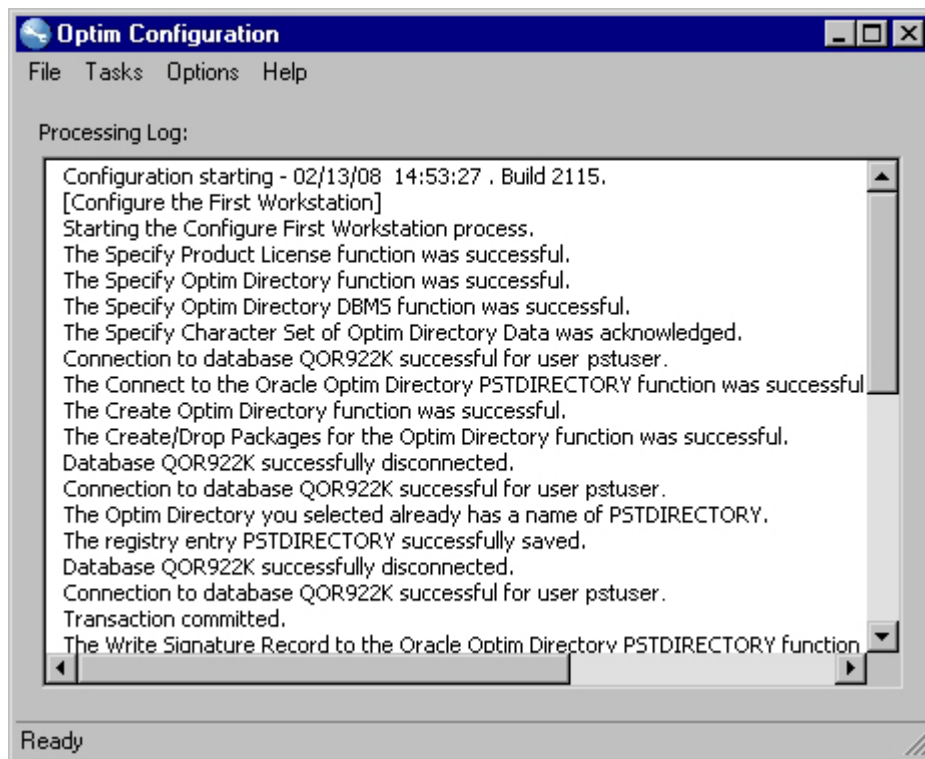
Help Menu

Use the **Help** menu to access online help information or to select the Configuration Assistant. In addition, if you have internet access, you can connect directly to the IBM Web site.

(A check mark indicates the toolbar or status bar is selected for display.)

Processing Log

The Processing Log lists the actions performed during the configuration process or when you select any command on the **Tasks** menu.



Use this log to review the actions in the configuration process and determine if additional action is required. The Processing Log shows the following.

- The date and time you started the Configuration program.
- A list of the processes started, completed, or cancelled.
- The tasks performed successfully or unsuccessfully.
- Instances of connecting to or disconnecting from the database.
- The names of newly created Optim Directory tables.
- The names of newly created database plans, packages, or procedures.
- The sample tables, Optim objects, and data privacy data tables loaded or dropped.

Note: To keep processing steps in view, you can move the Processing Log window without regard to other open windows.

The Configuration program generates a file (PROCNFG.LOG) of configuration information from the current and previous sessions. This file is saved to the Temporary Work Directory specified when you configure Personal Options (or in the default Temp directory). If needed, you can browse or print this file using a text editor such as Notepad.

Configuration Assistant

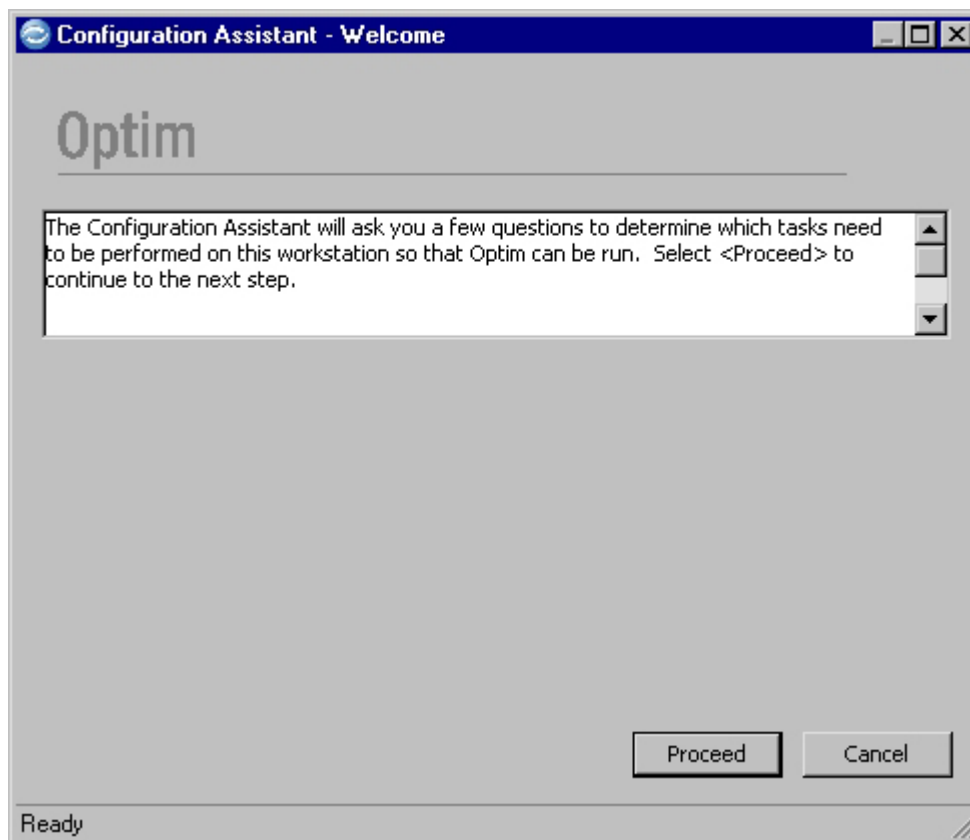
There are several ways to start a task to configure Optim.

- You can use the Configuration Assistant, available immediately following installation when you select the option to Launch Optim configuration. The Configuration Assistant provides Wizard-like help to guide you to the appropriate configuration options. You may also start the Configuration Assistant from the **Help** menu in the Configuration program.
- You can select individual configuration options from the **Tasks** menu in the Configuration program.

After you install Optim, you are prompted to configure the first workstation. Choosing to continue starts the Configuration Assistant. If you choose not to configure immediately after installing the software, you can select **Configure First Workstation** from the **Tasks** menu or select **Configuration Assistant** from the **Help** menu.

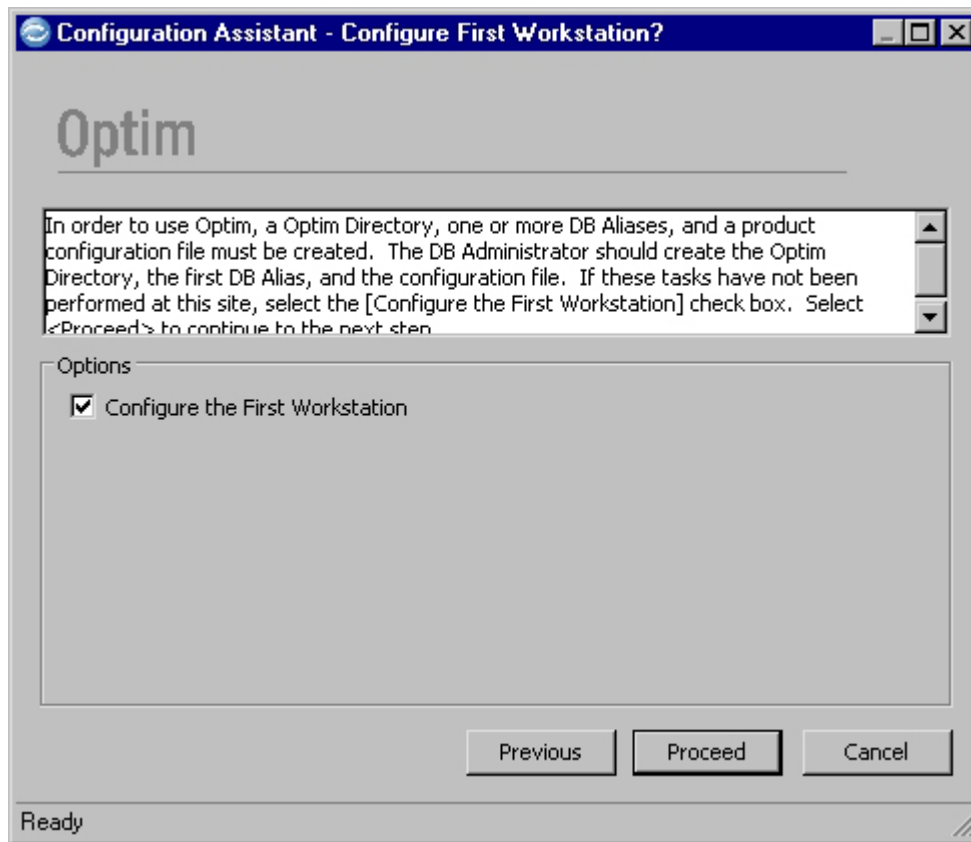
Configuration Assistant Dialogs

The Configuration Assistant presents a series of dialogs to guide you through each step in the configuration process. During the process, you make selections appropriate to your particular site and circumstances. The first window is the Welcome dialog.



To continue, click **Proceed**.

The next dialog prompts you to Configure the First Workstation.



This dialog and the other dialogs in Configuration Assistant are similar to the Welcome dialog with the addition of a task check box:

- To perform a task, select the check box and click **Proceed** to open the first dialog for the task.
- To skip a task, clear the check box and click **Proceed** to open the next Configuration Assistant dialog.

Dialogs

The Configuration program presents a series of dialogs to complete a specific task. You respond to prompts or provide necessary information and proceed to the next step in the process.

Some configuration dialogs are used in a number of different tasks; however, only the options appropriate for a specific task are available. In this guide, unavailable options are explained only if certain conditions cause them to become active.

Most configuration dialogs include the following:

- An information (read me) box provides details and directions to guide you through a step in the configuration process.
- Dialog-specific elements prompt for information needed to perform a selected configuration task. When a dialog opens, these elements are populated with default entries or other useful information whenever possible, and the most likely options are preselected.
- Command buttons control the logical flow from one dialog to the next.
- The status bar at the bottom of most configuration dialogs displays one or two boxes when you are connected to a database. The first box indicates the location of the Optim Directory. The second box is displayed if you are also connected to a DB Alias and indicates the corresponding information for the DB Alias.

- Each box indicates a DBMS type and a connection string, separated by a dash. For Informix, Sybase ASE, and MS SQL Server, the connection string is followed by the database name. (The letters NA following an Informix database type indicate a Non-ANSI database.)



Command Buttons

The most common command buttons include:

Previous

Return to the previous dialog. This button is not present in every dialog.

Proceed

Perform any tasks initiated by the current dialog using the information provided, close the dialog, and open the next dialog in sequence.

Skip Skip one or more logically related dialogs or tasks. This button is not present in every dialog and is sometimes unavailable.

Undo Restore the dialog to its initial status. This button is not present in every dialog.

Cancel

Close the current dialog and return control to the Configuration main window. This button is present in every dialog.

DBMS Terms Used

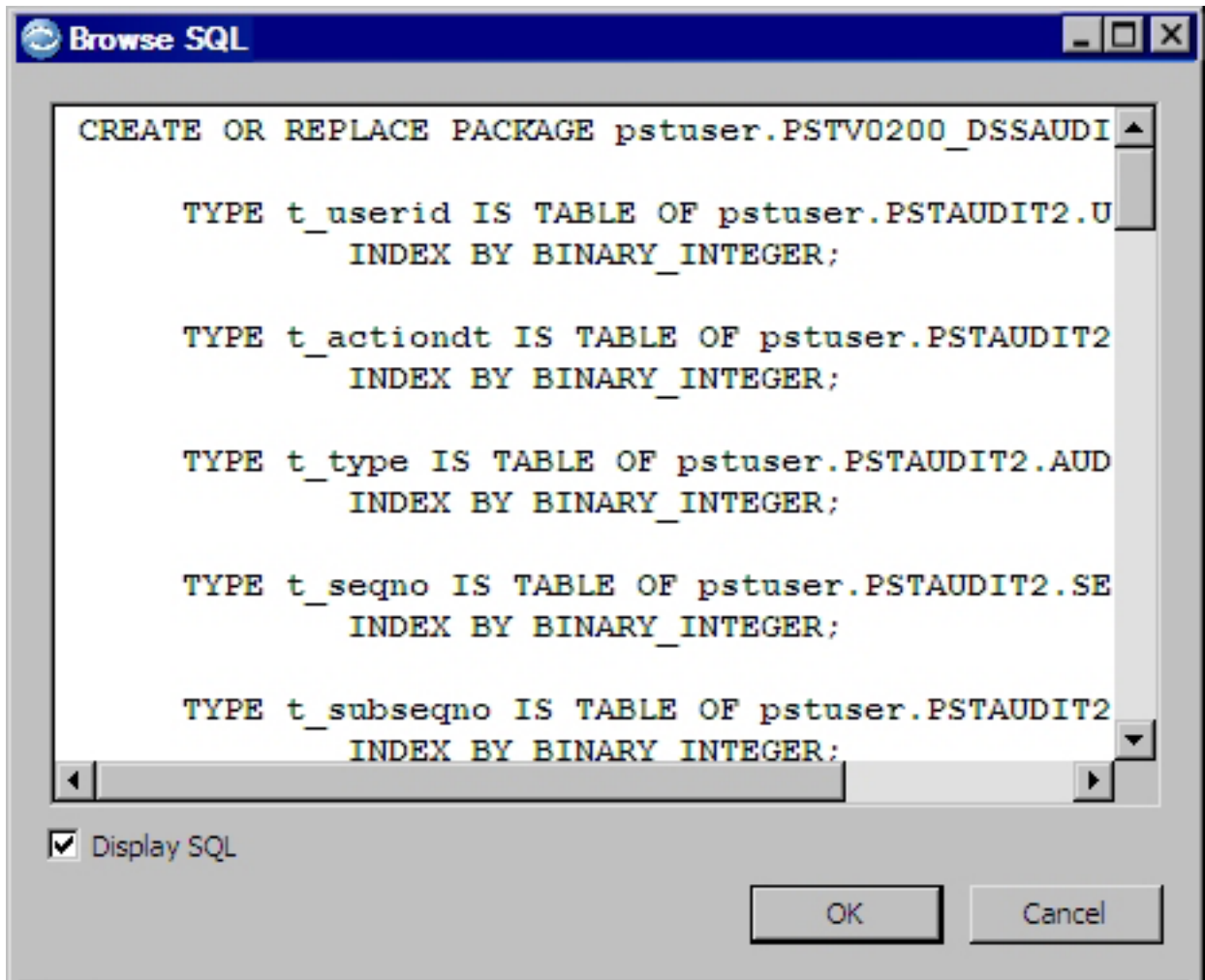
Optim supports several database management systems. Terms used in a configuration dialog reflect the DBMS for the database that is being configured. For example, when configuring an Oracle database, a configuration dialog refers to *Packages* to access database tables. However, when configuring a Sybase ASE or SQL Server database, the same dialog refers to *Procedures*, and for a DB2 database it refers to *Plans*. Varying terms are noted in the discussion of a dialog. In some instances, a particular DBMS may require a unique dialog. When this happens, both the common dialog and the DBMS-unique dialog are illustrated and discussed.

Display SQL

If the **Configuration** program creates *data definition language* statements or DDL, the pertinent dialog includes a check box, **Display SQL**. To review DDL statements before they are executed, select this check box. To execute a task without review, clear the check box.

Note: The **Configuration** program creates a text file, **sql.txt**, containing the DDL generated during the current and previous sessions. You can browse or print this file using a text editor, such as *Notepad*. The file is generated whether or not you select **Display SQL** on a particular dialog and is stored in the default Temp directory.

If you select **Display SQL** and click **Proceed**, the Browse SQL dialog opens, as illustrated in the following figure.



The Browse SQL dialog displays the generated DDL statements in sequence:

- To display the next DDL statement, select the **Display SQL** check box (may be checked when the dialog opens).
- To execute remaining DDL statements without review, clear the **Display SQL** check box.

Note: The check box to **Display SQL** is dynamic. If selected or cleared on one dialog, it automatically changes on other dialogs, where appropriate.

Chapter 5. Configure Workstations

Two Configuration tasks are used to configure workstations to use Optim. The first, Configure the First Workstation, creates the Optim Directory and establishes connectivity to databases through the creation of associated DB Aliases. If additional workstations are used, the Configure Additional Workstations task guides you through the process needed to establish them.

Once established, any workstation can be configured as an Optim Server, if your license permits.

Tasks Menu

Use the Configuration Assistant or commands from the **Tasks** menu to configure the Optim environment. You can choose to perform these tasks at any time.

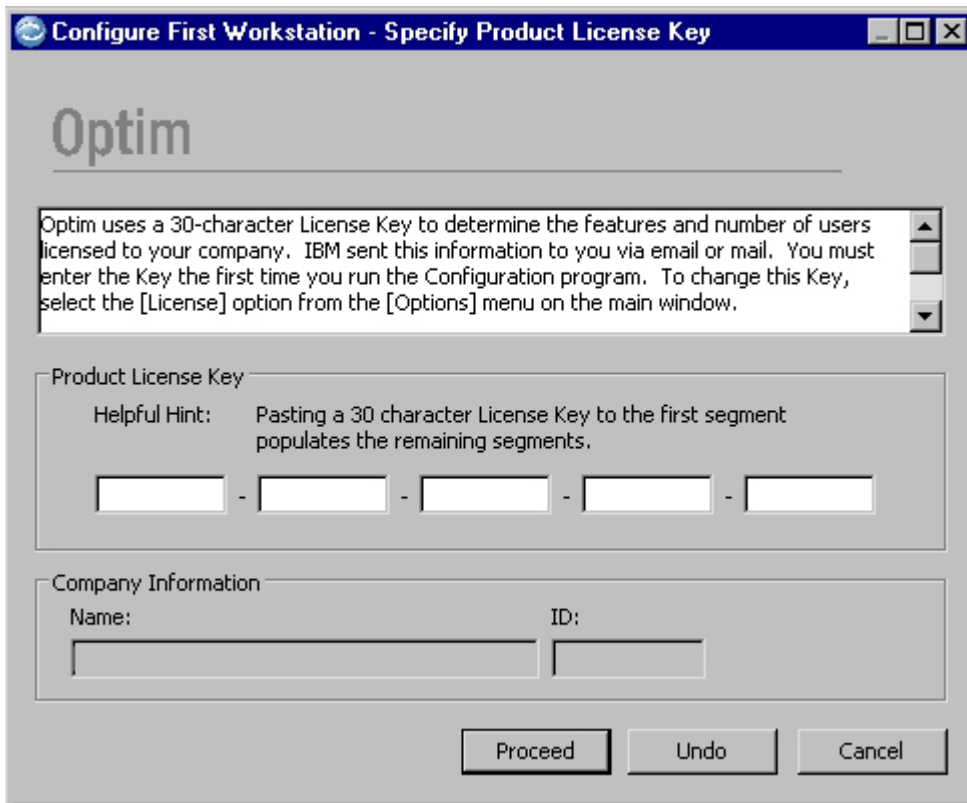
Note: Before you configure the first workstation and any additional workstations, you must sign the Optim default exit or a user-supplied exit of your own creation. You cannot continue with the Configuration process or use Optim until you sign a valid exit using the Sign Optim Exit dialog, as described in “The Sign Optim Exit Dialog” on page 54.

Configure the First Workstation

Several steps are required to configure the first workstation. However, you need not accomplish all steps while configuring the first workstation, but can come back to them later by selecting a task directly from the **Tasks** menu. For example, you are given the opportunity to initialize and establish security when configuring the first workstation, but will probably want to perform this task sometime later. If so, you can skip this portion of the Configure the First Workstation process.

Specify Product License Key

The first time you start the Configuration program after installing Optim, you are prompted to provide the Product License Key.



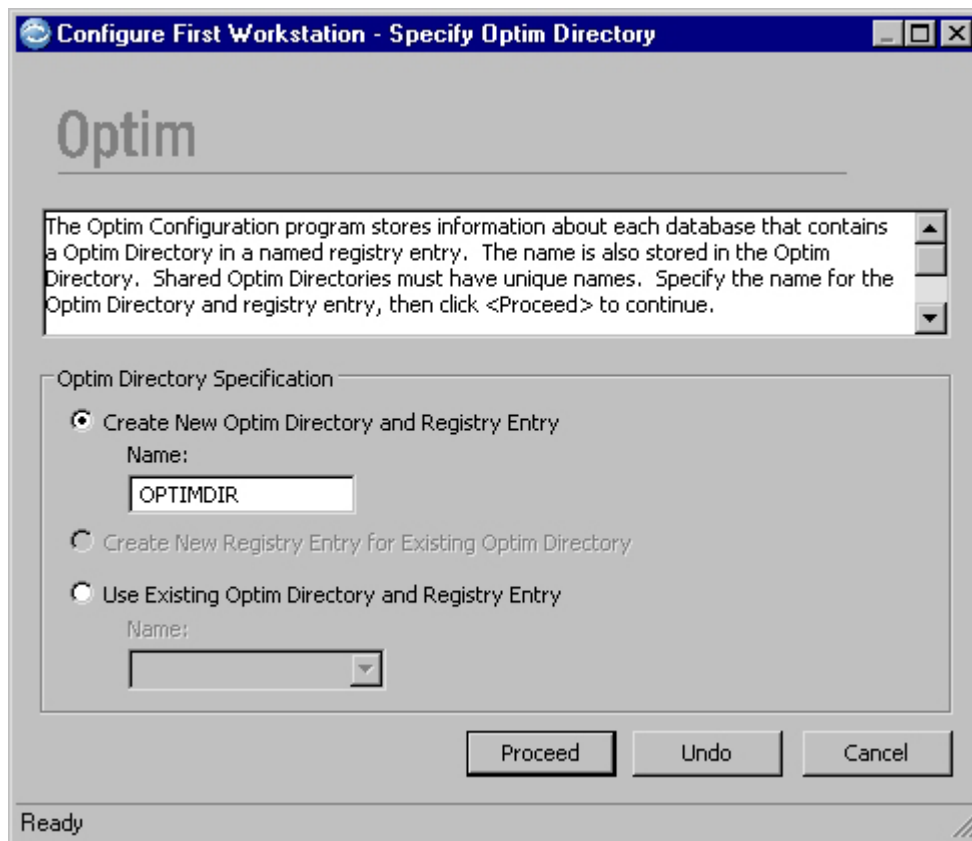
The Product License Key provides an internal control that determines the features and number of users your company is licensed to use Optim. This key may be changed from time to time when you upgrade the product. To enter the license key, you can copy it from the email sent to you by IBM. To continue, click **OK**.

Create Optim Directory

To create an Optim Directory, you must provide the Directory name, the database instance in which the Directory resides, and the information needed to connect to the database. After creating the Optim Directory tables, the Configuration program creates packages, plans, or procedures and a Windows registry entry that allows the workstation to access the Optim Directory.

Specify Optim Directory

The first step in creating an Optim Directory is to name it. Use the Specify Optim Directory dialog to name or select the Optim Directory.

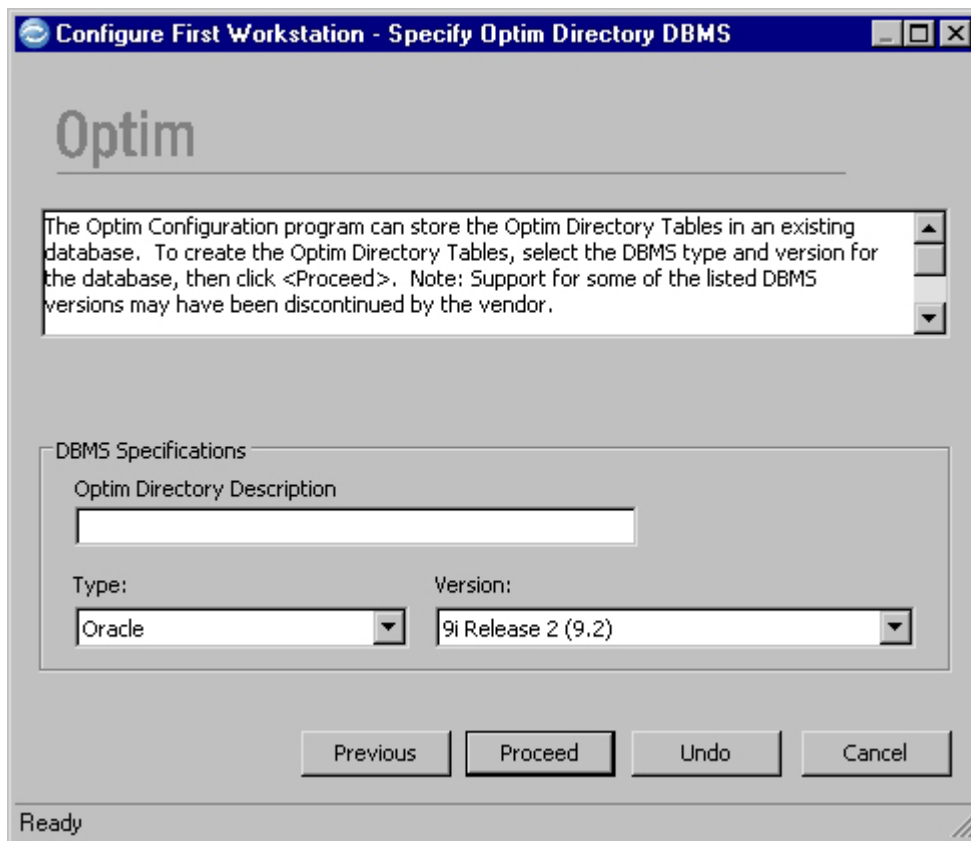


The Specify Optim Directory dialog presents the following options. You must select an option, enter an Optim Directory name, and click **Proceed** to open the next dialog.

- **Create New Optim Directory and Registry Entry** — Select this option to create the first or an additional Optim Directory. This option is always available and is selected when the dialog opens. If no Optim Directory registry entry exists for the workstation, the default name, OPTIMDIR, is shown. You can use this name or enter a different name for the new Optim Directory (1 to 12 characters, no embedded blanks).
- **Use Existing Optim Directory and Registry Entry** — Select this option if you are updating or continuing the configuration of the first workstation. This option is available after an Optim Directory and Windows registry entry are created. You must enter the name of the existing Optim Directory to use.

Specify Optim Directory DBMS

Before you can create Optim Directory tables, the database instance for the Optim Directory must exist; that is, it must be configured under a database management system. To create an Optim Directory, you must identify the DBMS type and version on the Specify Optim Directory DBMS dialog.



When this dialog opens, **Optim Directory Description**, **Type**, and **Version** may be populated with previously entered information. The Specify Optim Directory DBMS dialog includes the following:

DBMS Specifications

Optim Directory Description

Enter text to explain the purpose of the Optim Directory (up to 40 characters). The description is especially valuable if you have multiple Optim Directories.

Type Select the DBMS for the Optim Directory database. To select from a list, click the down arrow. The selected DBMS appears on the status bar of subsequent dialogs in the process.

Note: You cannot create the Optim Directory in a DB2 z/OS database. Also, an Optim Directory in an SQL Server database is not accessible to a UNIX-based Optim Server.

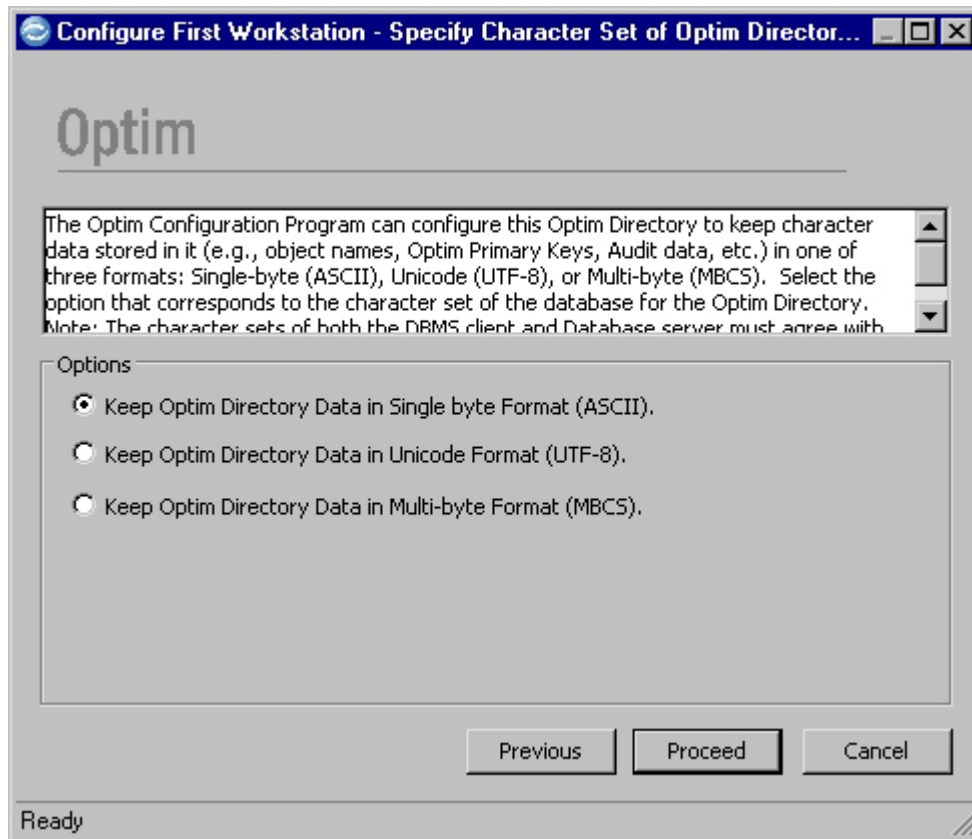
Version

Select the version of the DBMS for the Optim Directory database. To select from a list, click the down arrow.

Specify Character Set of Optim Directory

Character data such as object names and primary keys are stored in the Optim Directory in one of these formats: ASCII, Unicode, or multi-byte. Choose the option that corresponds to the character set of the database for the Optim Directory:

- If the DB Alias is multi-byte format, the Optim directory must be set as MBCS.
- If the DB Alias is UNICODE, then the Optim Directory must be set as UNICODE.
- If the DB Alias is single-byte, the Optim Directory can be set as either UNICODE or ASCII.



The options on this dialog are:

- Keep Optim Directory Data in Single byte Format (ASCII)
- Keep Optim Directory Data in Unicode Format (UTF-8)
- Keep Optim Directory Data in Multi-byte Format (MBCS)

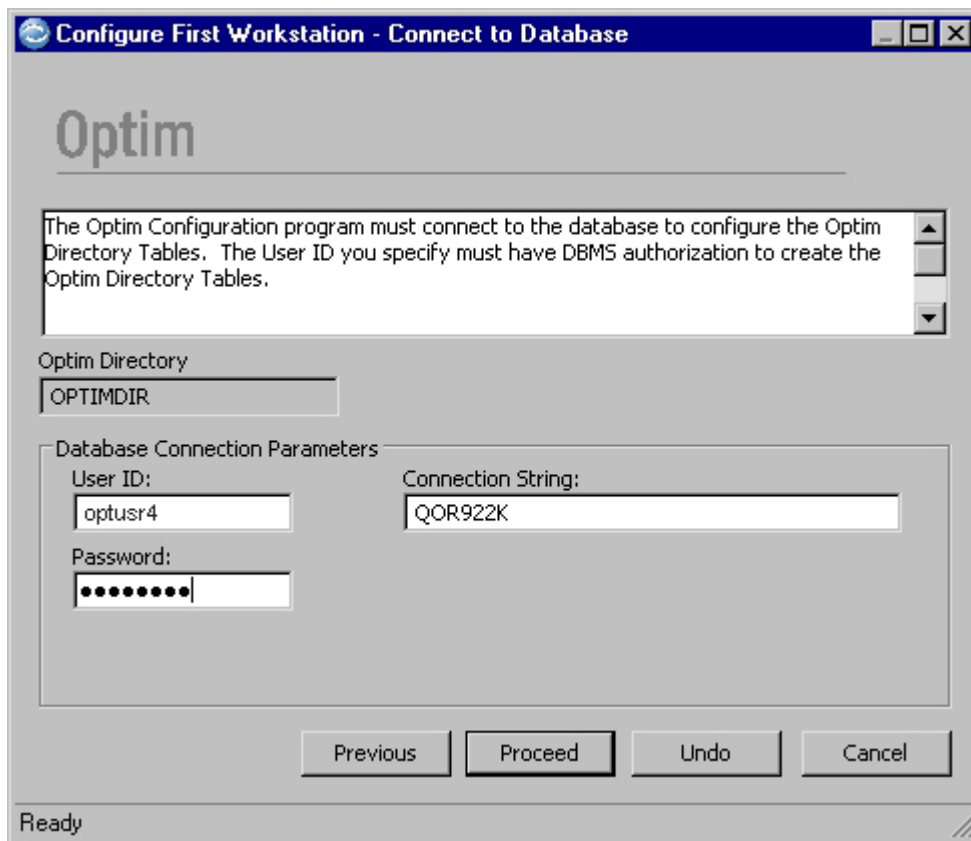
Select the option and click **Proceed** to open the next dialog.

Connect to Database

The Configuration program must connect to the database to create the Optim Directory tables and packages, plans, or procedures. To enable this connection, you must provide a valid User ID, Password, and Connection String.

The User ID must have the DBMS privilege to create the tables and to catalog the packages, plans, or procedures under the appropriate table identifier (Creator ID, Schema Name, or Owner ID) during the configuration process. Later, this workstation can access the Optim Directory using the same identifier or a different identifier with, perhaps, less authority.

Use the Connect to Database dialog to provide the connection information that allows the Configuration program to connect to the database and then configure Optim Directory tables.



The Connect to Database dialog prompts for the following Database Connection Parameters:

Optim Directory

Previously entered Optim Directory name.

Database Connection Parameters

User ID

Enter a User ID (up to 30 characters) that the DBMS requires to allow access to the Optim Directory database instance.

Password

Enter a password (up to 30 characters) that corresponds to the specified User ID.

Connection String

Enter the name or string needed to access the Optim Directory database.

Note: If you are using DB2, the term is *Database Name* or *Alias*. Oracle uses *DB Alias*, Sybase ASE uses *Server Name*, SQL Server uses *System Data Source Name*, and Informix uses *Host Name*. Syntax is described in the DBMS documentation.

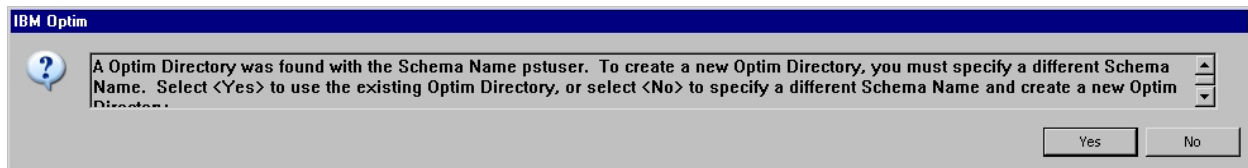
DB Name

Enter the name of the Sybase ASE, SQL Server, or Informix database instance for the Optim Directory.

Note: This prompt is displayed only if the Optim Directory is in a Sybase ASE, SQL Server, or Informix database.

Note: If you are creating a new Optim Directory and specify a User ID associated with another Directory in the database, the following pop-up dialog informs you that another ID must be specified for the Optim Directory tables schema name.

- Select **Yes** to use the existing Directory instead of creating a new Directory and proceed to the Create/Drop Packages dialog.
- Select **No** to continue creating a new Directory and specify a new schema name in the Create Optim Directory Tables dialog.

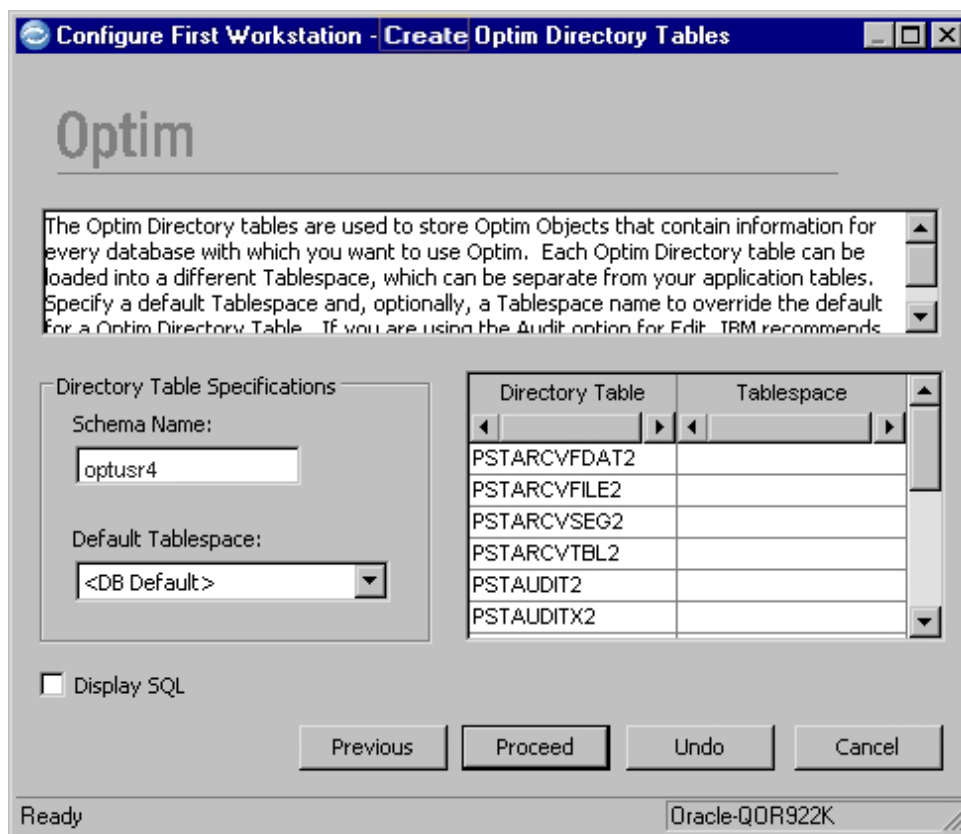


Create Optim Directory Tables

After the workstation is connected to the database, you can create the Optim Directory. The Configuration program names the tables automatically, but you can specify the identifier (Creator ID, Owner ID, or Schema Name) and the database tablespace for each table.

You can create the Optim Directory tables in a unique tablespace or in the same tablespace as the other database tables. The Create Optim Directory Tables dialog prompts you for the information to create these tables.

You can also specify the tablespace for tables, individually or as a group, and browse the DDL generated to create the Optim Directory tables.



The Create Optim Directory Tables dialog displays the following details:

Directory Table Specifications

Schema Name

Enter an identifier for the Optim Directory tables. The label is Creator ID when creating the Optim Directory for a DB2 database, Schema Name for an Oracle database, and Owner ID for a Microsoft SQL Server, Sybase ASE, or Informix database.

For an Oracle database, the Schema Name must not be SYS or any name that is the same as one of the Optim Directory tables (for example, PSTDBA2, PSTPK2, PSTREL2, PSTPT2).

Default Tablespace

Select a default tablespace. To select from a list of available DBMS tablespaces, click the down arrow.

Tablespace Grid

Directory Table

The names of the Optim Directory tables.

Tablespace

Click a Tablespace cell to select from a list of available tablespaces in the database or leave blank to place the table in the default tablespace.

Create/Drop Packages

After the Optim Directory tables are created, the **Configuration** program automatically creates the packages, plans, or procedures used to access them. If you are creating the Optim Directory in an Oracle database the **Create/Drop Packages** dialog is displayed.

Configure First Workstation - Create/Drop Packages

Optim

Optim must use Optim created Packages to access the Optim Directory Tables. The Optim Configuration program creates these Packages. The Schema Name is the same as the Schema Name for the Optim Directory Tables.

Tables:
Optim Directory Tables

Package Specifications

☒ Create/Refresh
☐ Use Existing
☐ Drop

Schema Name:
optusr4

Grant Auth ID:
PUBLIC

☐ Display SQL

Previous Proceed Skip Undo Cancel

Ready Oracle-QOR922K

If you are using SQL Server, Sybase ASE, or Informix, the same general dialog is displayed as Create/Drop Stored Procedures. However, if DB2 LUW is the DBMS for the Optim Directory, the Configuration program displays the Bind/Drop Plans dialog, shown and described in “Bind/Drop Plans.”

The Create/Drop Packages dialog includes the following details:

Tables Description of the tables for which packages (plans) or procedures are being created.

Package Specifications

Create/Refresh

Option to create new or refresh existing Optim Directory packages (plans) or procedures. This option is always available when creating an Optim Directory and is the default selection when the dialog opens.

Use Existing

Option to use existing packages (plans) or procedures. This option is available only if packages or procedures already exist for the Optim Directory.

Drop Option to drop existing Optim Directory packages (plans) or procedures. This option is available only if packages or procedures already exist for the Optim Directory.

Qualifier

Previously entered high-level qualifier needed to access Optim Directory tables. The label is Collection Name for DB2, Schema Name for Oracle, and Owner ID for SQL Server, Sybase ASE, or Informix.

Grant Auth ID

Enter an identifier for authorized users. You may specify a User ID, a Group Name, or Public. When this ID is Public, all users can run Optim.

Display SQL

Select this check box to display SQL statements before creating or dropping packages (plans) or procedures.

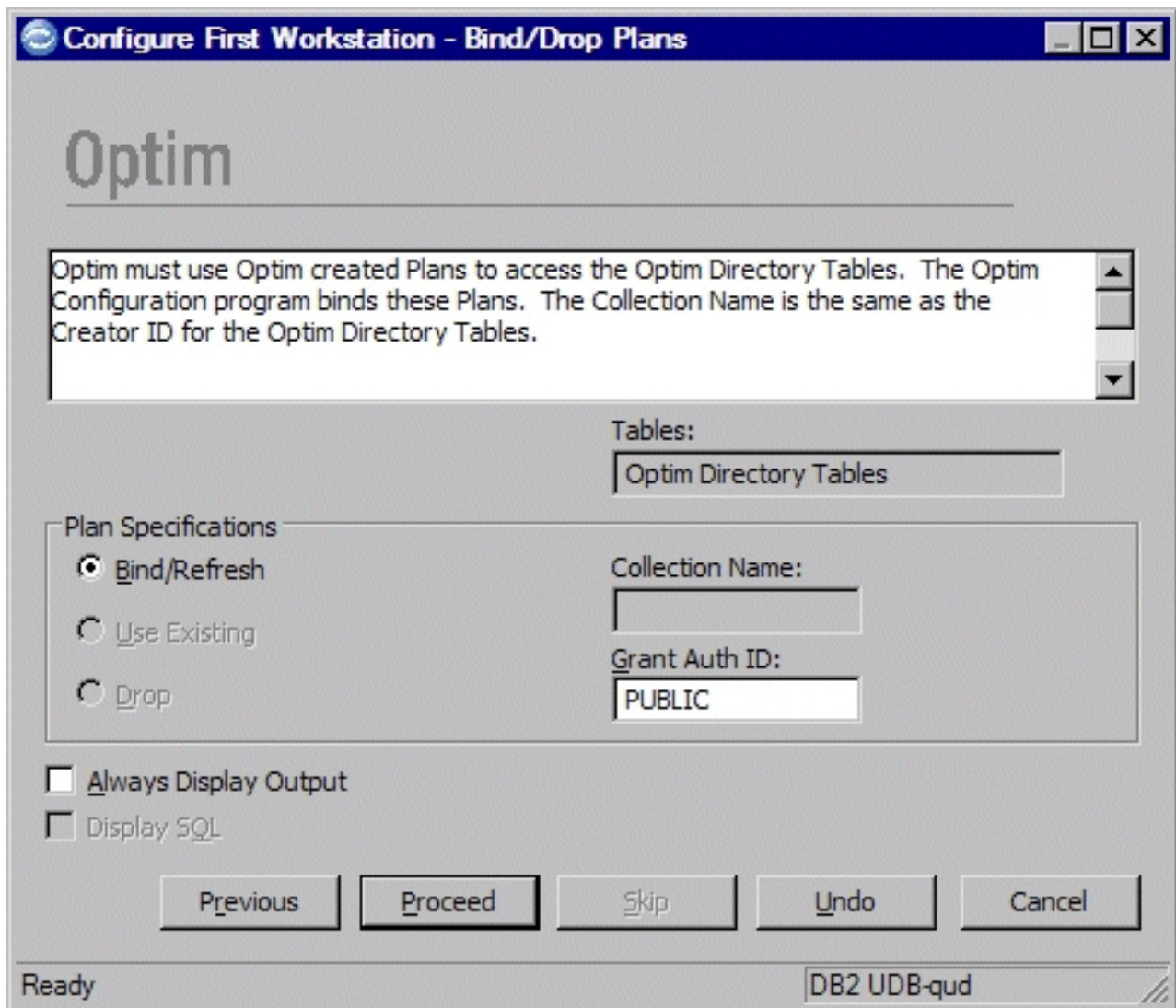
Note: If you attempted to create a new Optim Directory but responded Yes to the pop-up window from the Connect to Database dialog, the following pop-up prompts you to confirm that you will use the existing Directory instead of creating a new one.

- Select **Yes** to use the existing Directory name and proceed to the Connect to Database dialog.
- Select **No** to not use the existing Directory name and terminate the Directory creation process.



Bind/Drop Plans

When creating an Optim Directory in a DB2 database, the configuration process prompts for authorization information using the Bind/Drop Plans dialog.



The elements in the Bind/Drop Plans dialog are similar to those described for Create/Drop Packages with the following exception:

Always Display Output

Select this check box to open the Browse File dialog to review any errors, warnings, and information regarding the bind.

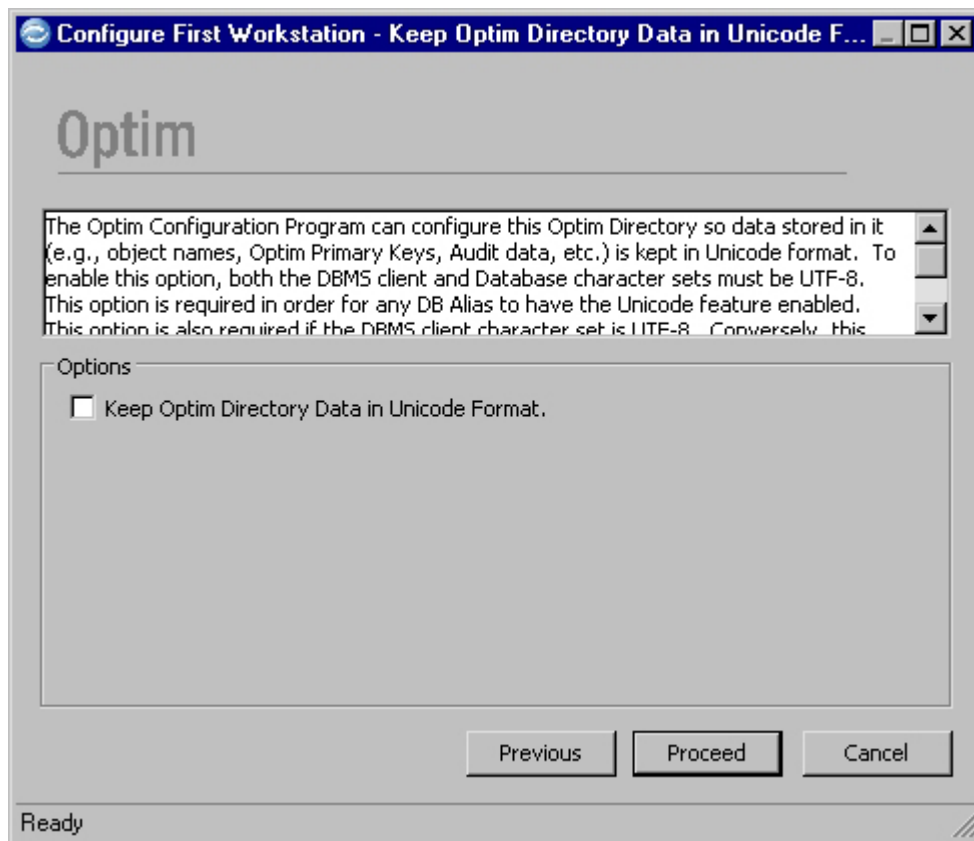
Note: If problems or a failure occurs during the bind, the Browse File dialog opens whether or not you select **Always Display Output**.

Define Character Format

If the Optim Directory is in a DBMS for which Optim supports Unicode (except SQL Server) or multi-byte, you must indicate the character format of the Directory.

Keep Optim Directory Data in Unicode Format

If you are creating an Optim Directory in a DBMS for which Optim supports Unicode, you are prompted to indicate whether the Optim Directory data is kept in Unicode format.

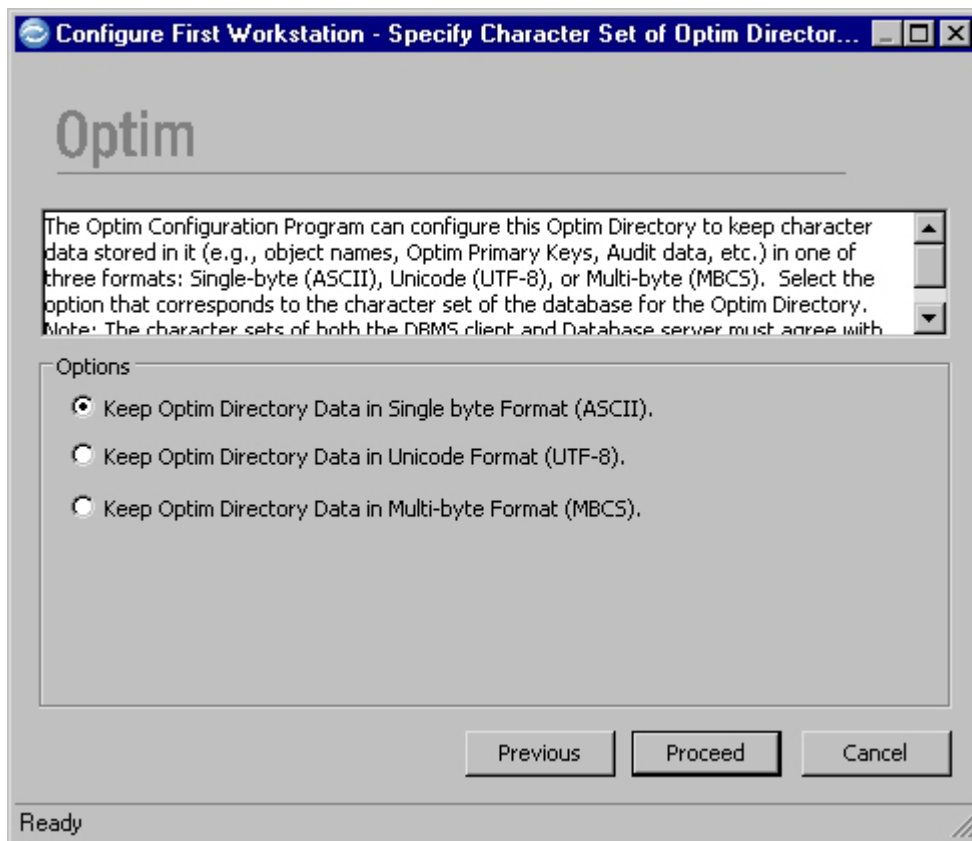


Note: For DB2 for Linux, UNIX, Windows databases. The Special Considerations for an Optim Directory dialog is displayed next, indicating that DB Aliases for DB2 for Linux, UNIX, Windows or DB2 for z/OS databases in a DB2 for Linux, UNIX, Windows Optim Directory must use the same character format as the Directory.

Specify Character Set of Optim Directory Data

When you are creating an Optim Directory in a DBMS, you are prompted to indicate the format in which the Directory should store data: single-byte, Unicode or multi-byte.

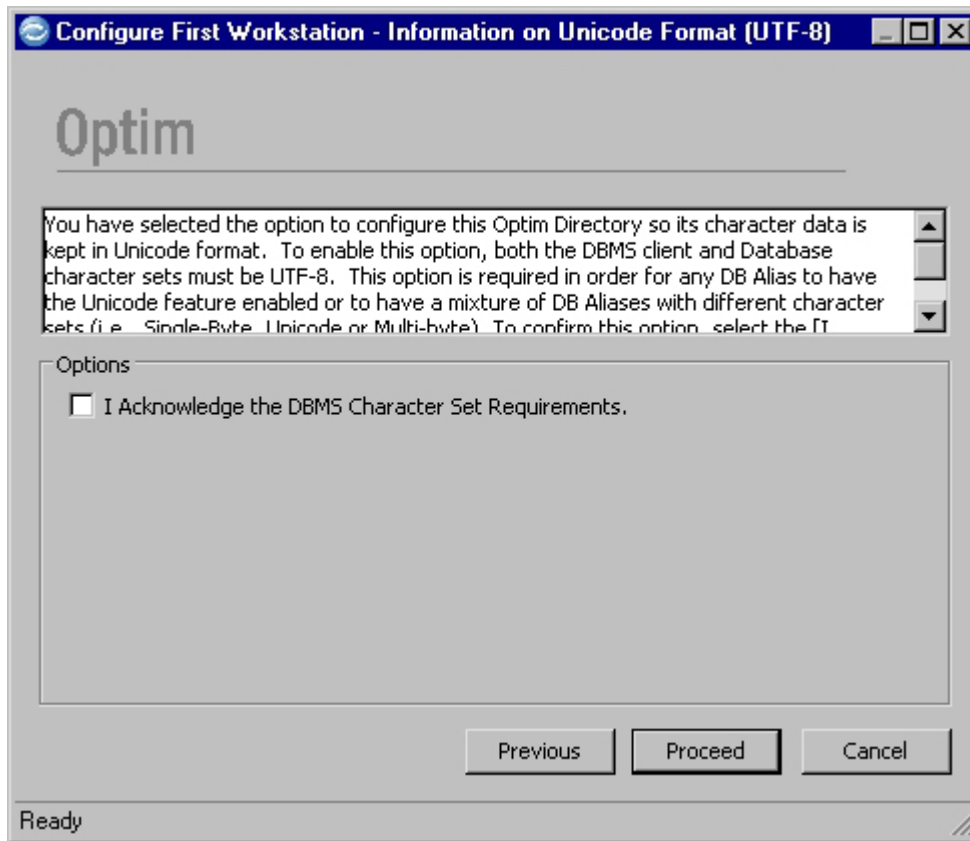
Note: The character sets of the DBMS client and the database server must match your selection.



Information on Unicode Format (UTF-8)

If you select Unicode format in the Specify Character Set of Optim Directory Data dialog, you are prompted to acknowledge the following DBMS character set requirements for Unicode:

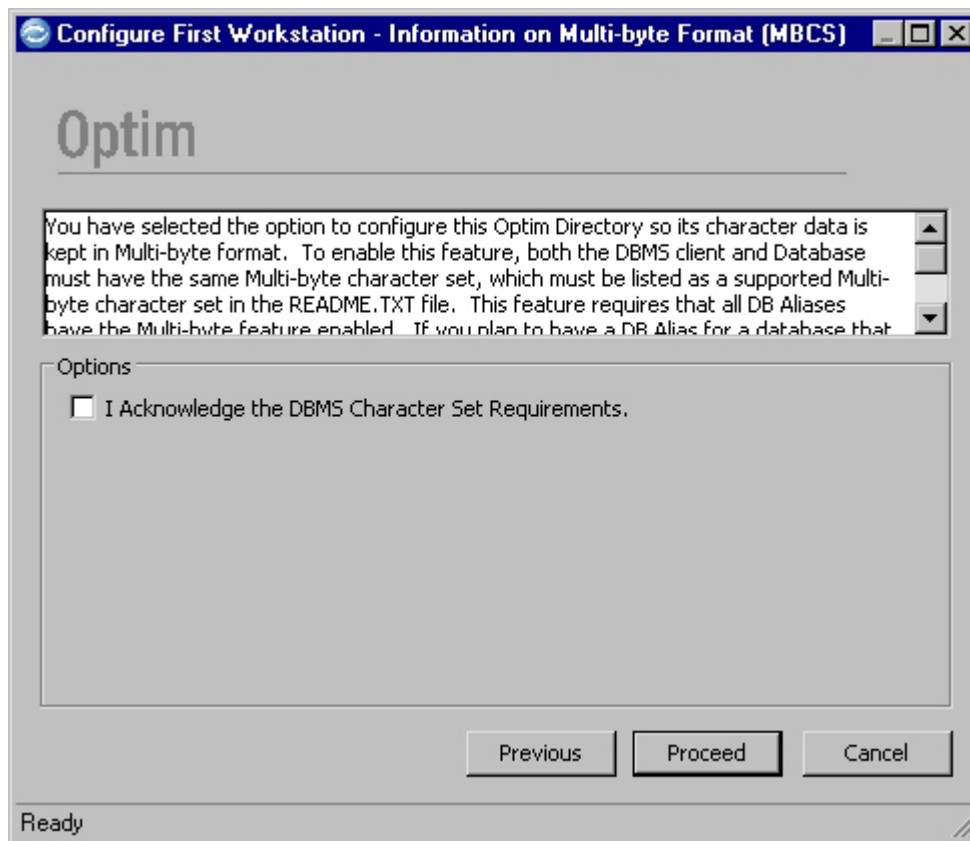
- Both the DBMS client and database character sets must be Unicode.
- The Optim Directory must be in Unicode format if it includes DB Aliases for databases of character sets that include single-byte and/or Unicode.



Information on Multi-byte Format (MBCS)

If you select multi-byte format in the Specify Character Set of Optim Directory Data dialog, you are prompted to acknowledge the following DBMS character set requirements for multi-byte:

- Both the DBMS client and database must have the same supported multi-byte character set.
- An Optim Directory in multi-byte format supports multi-byte DB Aliases only.



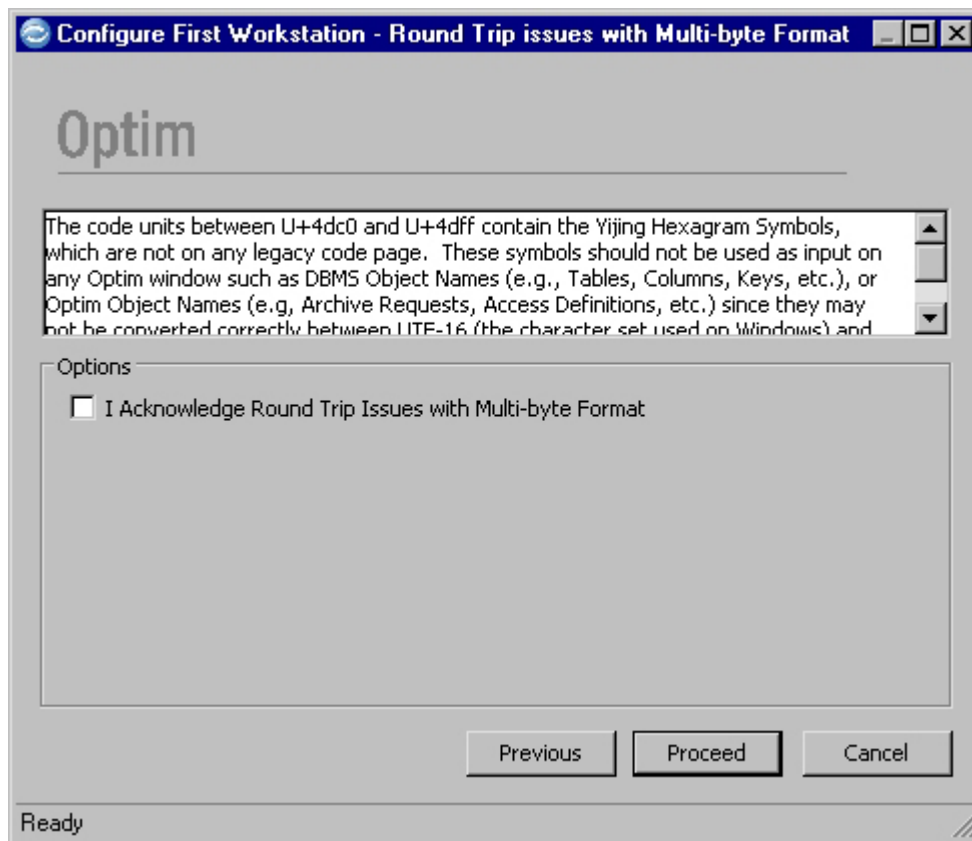
Round Trip Issues with Multi-byte Format

After you acknowledge the DBMS character set requirements for an Optim Directory in multi-byte format, you are prompted to acknowledge multi-byte round trip conversion issues.

Optim uses the Unicode character set in dialogs and to process data. In some multi-byte character sets (such as Oracle JA16SJIS), multiple characters are mapped to the same Unicode character and/or some Unicode characters are mapped to the same multi-byte character. When these characters are converted from Unicode to multi-byte plus multi-byte to Unicode or multi-byte to Unicode plus Unicode to multi-byte the original character may not be returned. This two-way conversion is considered a round-trip and identifies this situation.

Note: To avoid round-trip issues with multi-byte data, do not use multi-byte characters in your source data that will result in ambiguous conversions from Unicode.

Optim provides a Product Option (on the **Database** tab) and a Personal Option (on the **Database** tab) that determine how to handle round-trip conversion issues when processing data in a multi-byte database.

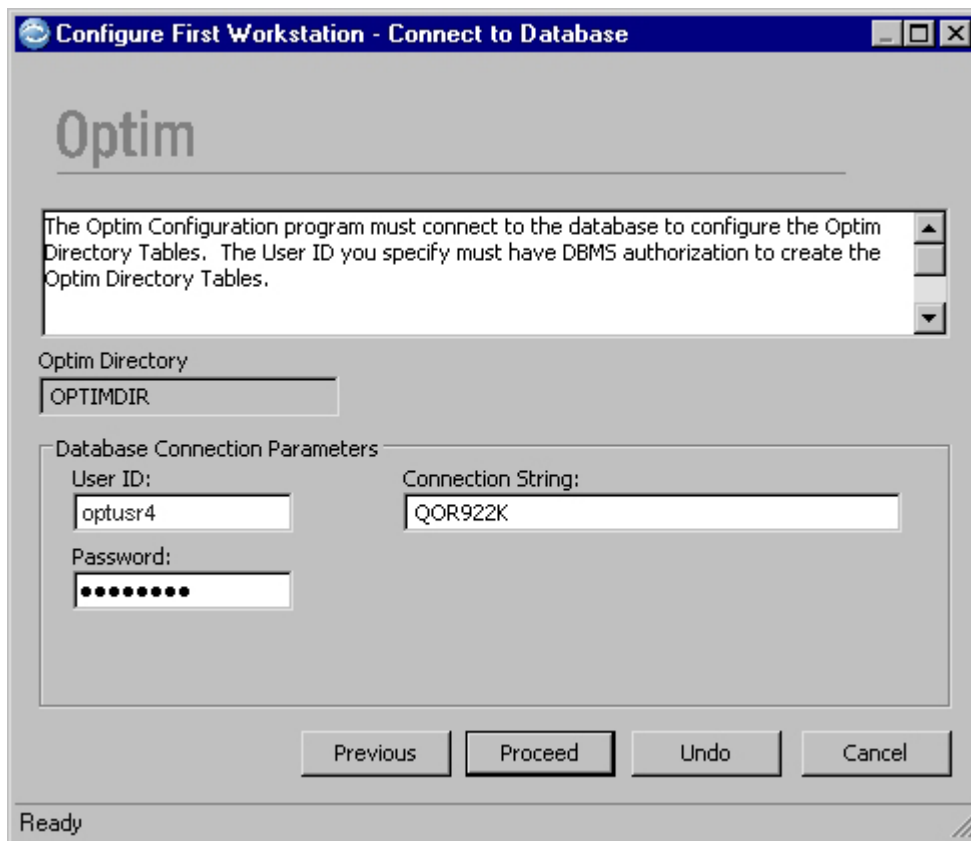


Register Optim Directory

The Configuration program creates a Windows registry entry that the workstation uses to access the Optim Directory. For subsequent access to the Optim Directory from this workstation, you can use the Connect to Database dialog to specify a User ID and Password different from those used to create the Optim Directory. (You can modify these entries when you configure Personal Options.)

Connect to Database Dialog

The name of the Optim Directory is displayed and the Connect to Database dialog is populated with values entered when you created the Optim Directory.



Optim Directory

Name of the Optim Directory to which the registry entry applies.

Database Connection Parameters

User ID

Enter the User ID (up to 30 characters) that the DBMS requires to allow access to the Optim Directory database instance.

Note: For security and other reasons, it may be desirable to specify a user account with privileges that differ from those required to configure the workstation.

Password

Enter the password (up to 30 characters) that corresponds to the specified User ID.

Connection String

The name or string required to access the Optim Directory database. This value was entered earlier in the process and cannot be changed.

Note: If you are using DB2, the term is *Database Name* or *Alias*. Oracle uses *DB Alias*, Sybase ASE uses *Server Name*, SQL Server uses *System Data Source Name*, and Informix uses *Host Name*. Syntax is described in the DBMS documentation.

DB Name

The name of the Sybase ASE, SQL Server, or Informix database instance for the Optim Directory. This value was entered earlier in the process and cannot be changed.

Note: DB Name is displayed only if the Optim Directory is in a Sybase ASE, SQL Server, or Informix database.

Always Ask for Password

Select this check box to require a password each time you connect to the database. If you clear this check box, your password is saved in the Windows registry and you need not supply a password on future attempts to connect to the database.

This completes the process of creating the Optim Directory for the first workstation. In the next phase of the process, you create DB Aliases that allow Optim to access each database.

Create DB Aliases

Optim can access several databases simultaneously; however, each database must have a unique DB Alias stored in the current Optim Directory. A DB Alias is given as a high-level qualifier for a database table name to provide a single-name association for parameters required to connect to the database.

The next step in the process to configure the first workstation involves creating a DB Alias for each database and creating the packages, plans, or procedures to access tables in those databases. The Configuration program prompts you to:

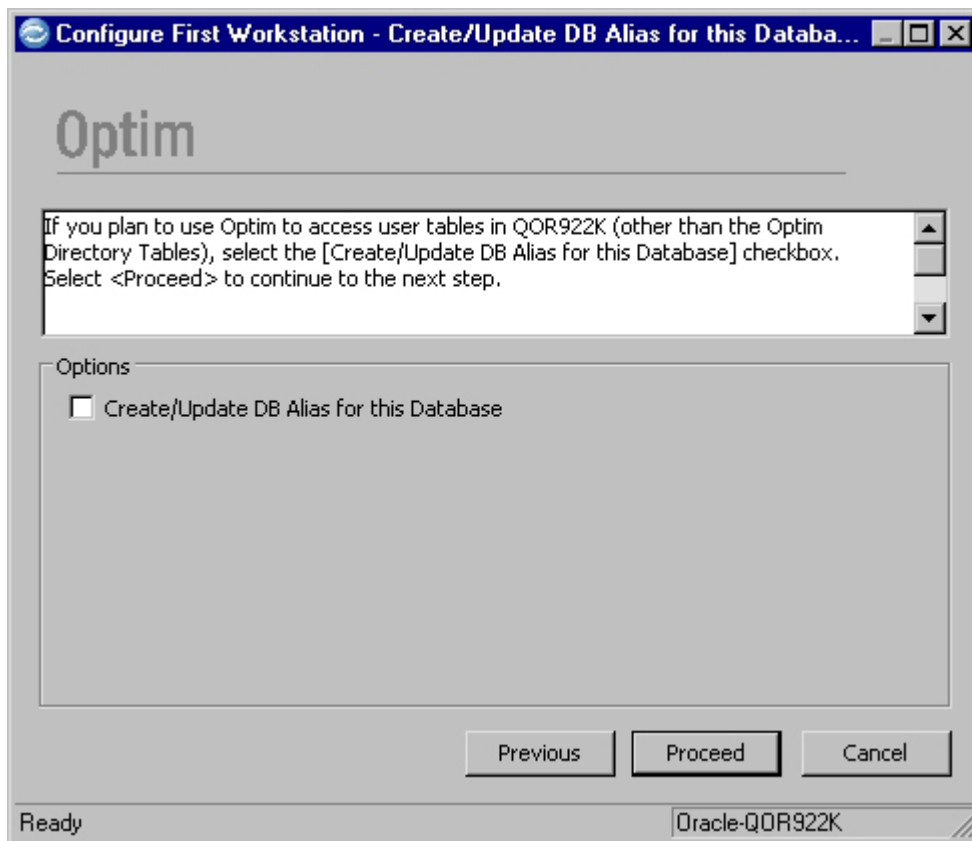
- Create a DB Alias for the database instance housing the Optim Directory.
- Create Optim Primary Keys for tables that have unique indexes, if DBMS primary keys have not been created.
- Create and load the sample tables, if desired.
- Create and load the data privacy data tables, if you have an Optim Data Privacy License.

The Configuration program then provides an option to create DB Aliases for other databases and repeats the process.

If you have several SQL Server, Sybase ASE, or Informix databases on one server, you can use the **Create Multiple** option to create a DB Alias for each database on the server, from a single dialog.

Create DB Alias?

After you create the Optim Directory, you are prompted to create a DB Alias for the database in which it resides.



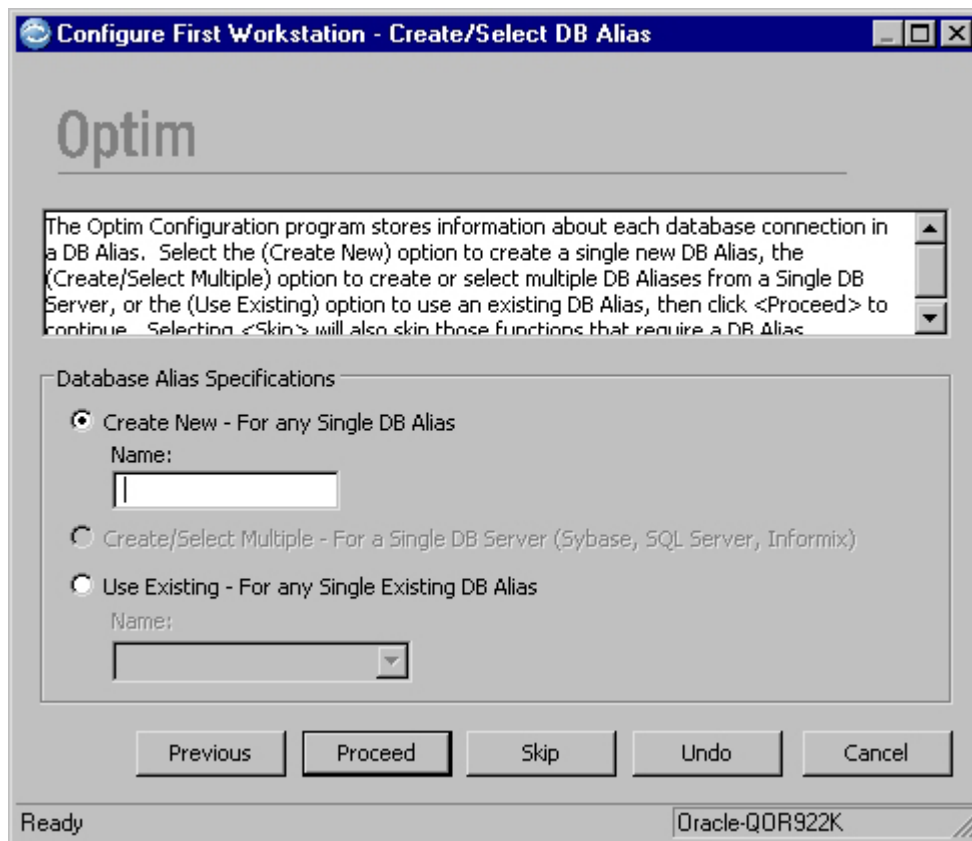
If you plan to access tables (in addition to Optim Directory tables) in the same database, select the **Create/Select DB Alias for this Database** check box. (After creating the DB Alias, you are prompted to share connection information for the DB Alias and the Optim Directory.) If you want to create a DB Alias for a different database, clear the check box.

Click **Proceed** to continue.

Create/Select DB Alias

Use the Create/Select DB Alias dialog to create and name a single new DB Alias, create multiple new DB Aliases for a single server, or modify an existing DB Alias.

Note: If configuring a workstation that is to function as an Optim Server (Server), you also must provide information for each DB Alias on the **Connection** tab on the Optim Server Settings applet. Refer to “Connection Tab” on page 151.



The Create/Select DB Alias dialog presents the following DB Alias specifications options:

Create New

Select this option to create a new DB Alias. You must provide a name for the DB Alias. Enter the name of the new DB Alias (1 to 12 characters, no embedded blanks). **Name** is blank when the Create/Select DB Alias dialog opens.

Create/Select Multiple

Select this option to create or select a DB Alias for each of two or more database instances on a Sybase ASE, SQL Server, or Informix database server. (Refer to “Create Multiple DB Aliases” on page 110.)

Use Existing

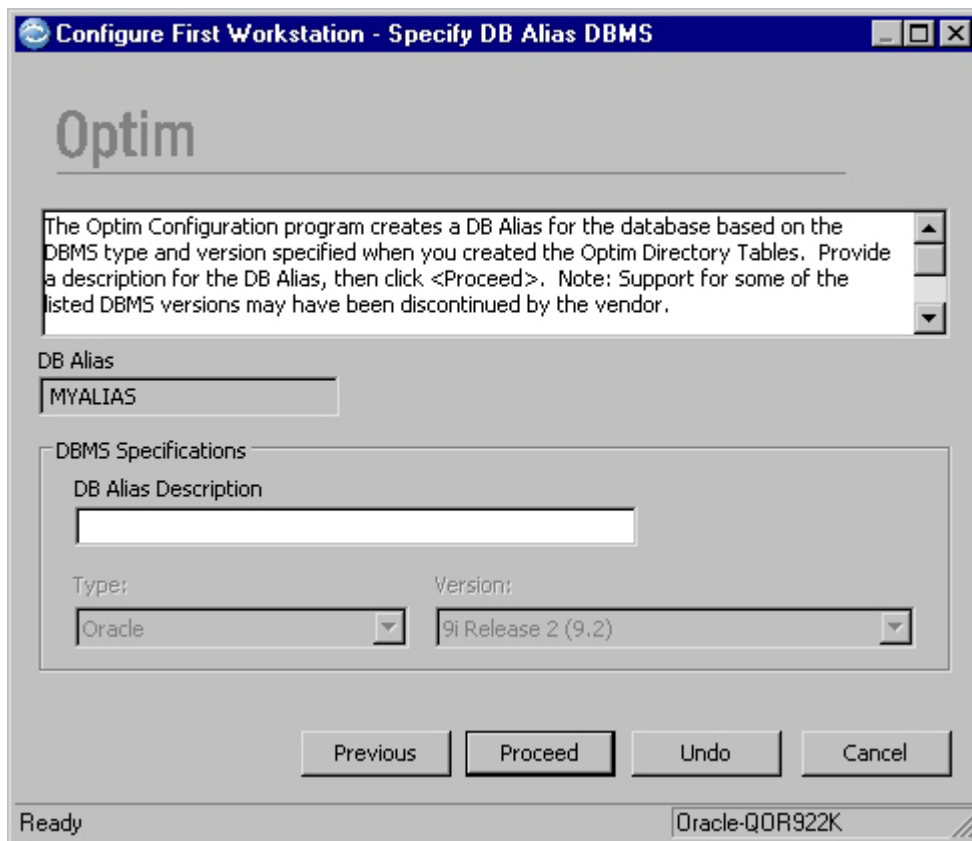
Select this option to use a previously created DB Alias. Use this option to modify the name of a stored procedure for an existing DB Alias. Select the name of the DB Alias. **Name** is available only if **Use Existing** is selected. To select from a list, click the down arrow.

Create New or Use Existing

When you select an option to create a new or modify an existing DB Alias, you are prompted for the necessary information.

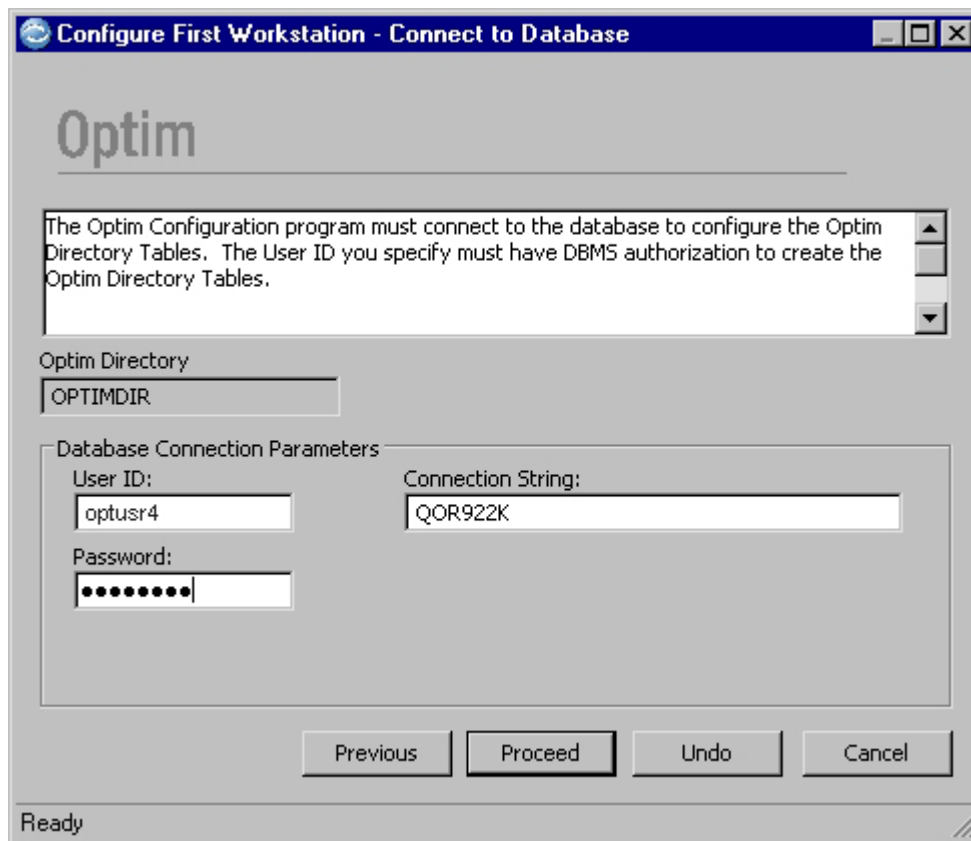
Specify DB Alias DBMS

You can provide a description to distinguish a new DB Alias from other DB Aliases. The configuration process displays the Specify DB Alias DBMS dialog.



Connect to Database

The Configuration program requires certain information to configure the Catalog Tables (DB2 or Informix), Data Dictionary (Oracle), or System Tables (Microsoft SQL Server or Sybase ASE). You provide these details on the Connect to Database dialog.



The Database Connection Parameters are populated with previously entered values. Modify these values, as needed.

DB Alias

Name of the DB Alias you are creating.

Database Connection Parameters

User ID

Enter the User ID (up to 30 characters) that the DBMS requires to allow access to the Optim Directory database instance.

Password

Enter the password (up to 30 characters) that corresponds to the specified User ID.

Connection String

Enter the name or string required to access the database.

Note: If you are using DB2, the term is Database Name or Alias. Oracle uses DB Alias, Sybase ASE uses Server Name, SQL Server uses System Data Source Name, and Informix uses Host Name. Syntax is described in the DBMS documentation.

DB Name

Enter the name of the Sybase ASE, SQL Server, or Informix database instance referenced by the DB Alias.

Note: This prompt is displayed only if the Optim Directory is in a Sybase ASE, SQL Server, or Informix database.

Create/Drop Packages

Access to database tables requires plans, packages, or procedures, which the configuration process creates automatically:

- If you are configuring a DB2 database, the Bind/Drop Plans dialog is displayed (see “Create Optim Directory” on page 72).
- If you are using Oracle, the Create/Drop Packages dialog opens. Similarly, the Create/Drop Stored Procedures dialog is shown for SQL Server, Sybase ASE, and Informix.

Use the Create/Drop Packages dialog or the Create/Drop Stored Procedures dialog to specify the identifier for new or existing packages (plans) or procedures, when available. You can use common stored procedures for Sybase ASE.

The Create/Drop Packages dialog includes the following:

DB Alias

The previously entered name for the DB Alias for which packages (plans) or procedures are being created.

Tables Type of tables (Data Dictionary, Catalog Tables, or System Tables, depending upon the DBMS) for which packages (plans) or procedures are being created.

Stored Procedure Specifications

Create/Refresh

Select this option to create new or refresh existing packages, plans, or procedures. This option is always available when creating a new DB Alias and is the default selection when the dialog opens.

Use Existing

Select this option to use existing packages (plans) or procedures. The Configuration program creates a DB Alias that refers to the packages, plans, or procedures, but does not verify that they exist.

Drop Drop existing packages (plans) or procedures. This option is available only if packages (plans) or procedures already exist and can be dropped.

Qualifier/Prefix

When enabled, enter the high-level qualifier for packages (plans) or procedures. Refers to Collection Name to access DB2 Catalog Tables, Schema Name to access the Oracle Data Dictionary, and Owner ID to access System Tables in SQL Server or Sybase ASE, or Informix.

Note: For Sybase ASE and SQL Server, the “sp_” prefix is displayed when stored procedures are shared and **Use One Copy for all Databases on this Server** is selected.

Grant Auth ID

Enter an identifier for authorized users. You can specify a single User ID, a Group Name, or Public.

Use One Copy for all Databases on this Server

This check box is displayed for Sybase ASE and SQL Server only. Select the check box to use common stored procedures for databases on a single server. For Sybase ASE, stored procedures are stored in the special Sybase ASE database sybsysprocs. For SQL Server, stored procedures are stored in the MASTER database.

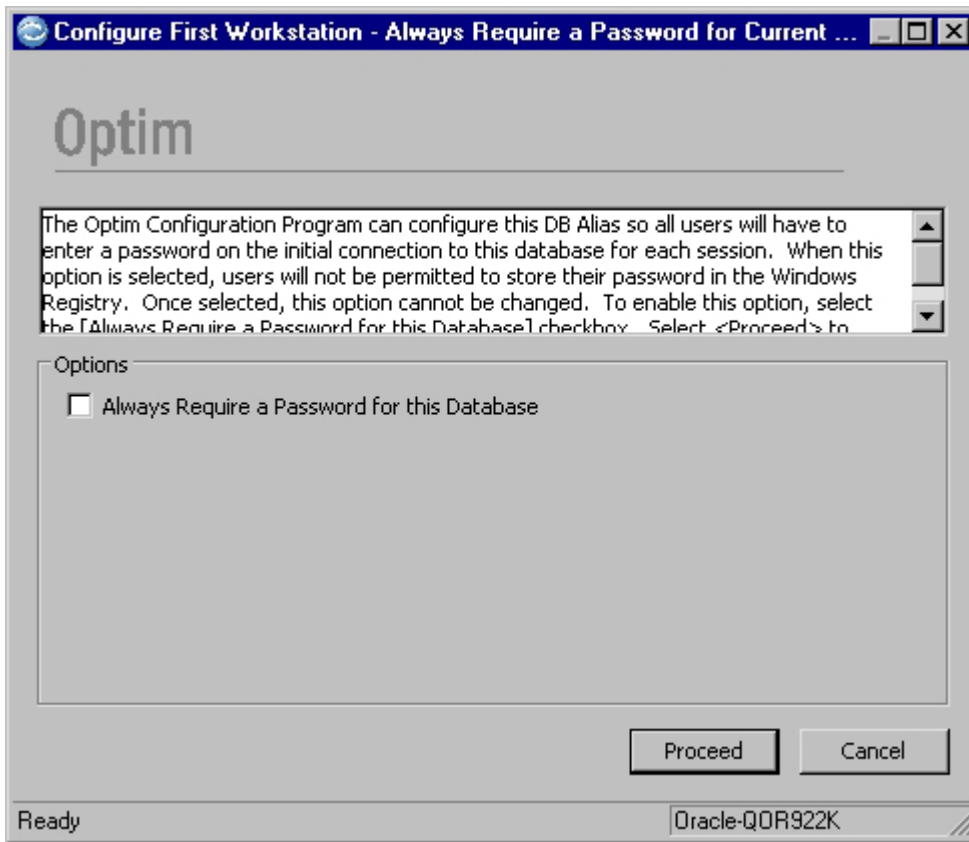
Note: Microsoft SQL Server documentation includes a caution regarding the creation of stored procedures in the MASTER database. Consider the implications of sharing stored procedures for SQL Server before proceeding.

Display SQL

Select this check box to display SQL statements before creating or dropping packages (plans) or procedures.

Always Require a Password

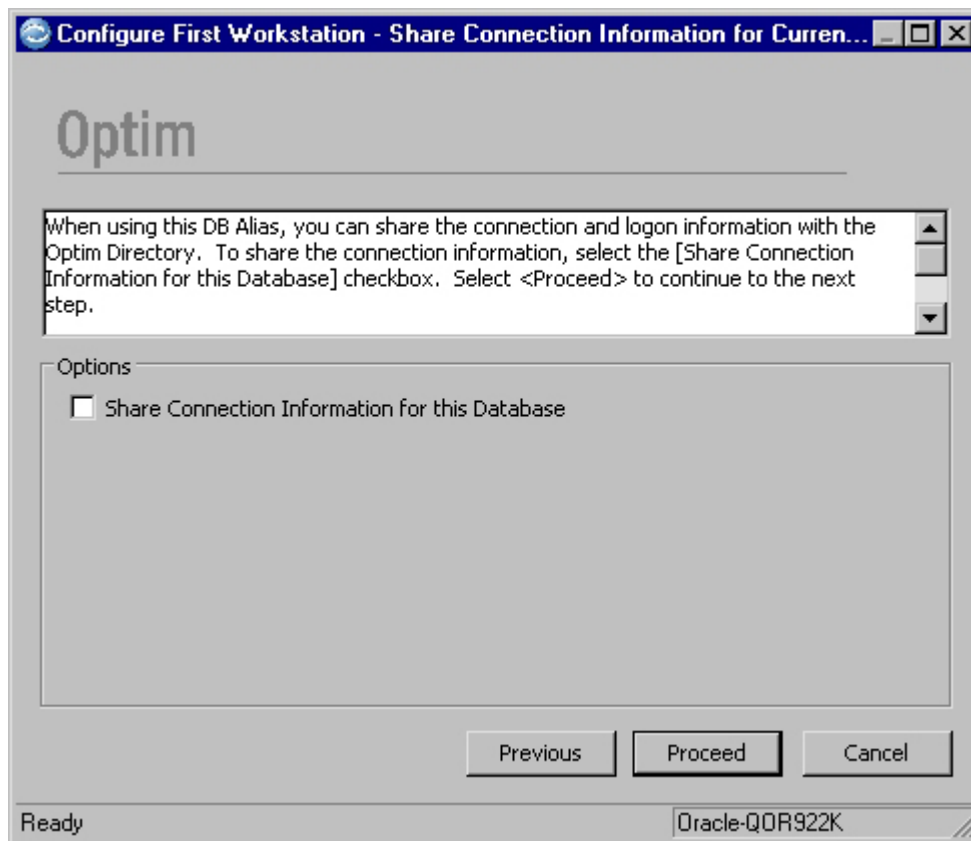
You can choose to require a password on the initial connection to the database for each session.



If you select this option, a user of Optim must provide a password at the beginning of each session. Once you select this option, you cannot change it. To continue, click **Proceed**.

Share Connection Information

If you wish to conserve the number of database connections and the new DB Alias represents the database in which the Optim Directory resides, you may want to use only one connection for accessing both the Optim Directory and the data in the database. For this reason, the Configuration program displays the Share Connection Information for Current Database dialog after creating the packages, plans, or procedures.



To access the Optim Directory and the DB Alias using a single connection, select the check box. If you clear the check box, the Connect to Database dialog opens and you can specify a User ID and Password for the new DB Alias.

Note: If the connection is shared, a change to the stored procedures (e.g., dropping the stored procedures or failing to perform maintenance after an installation) may prevent your connecting to the Optim Directory.

Define Character Format

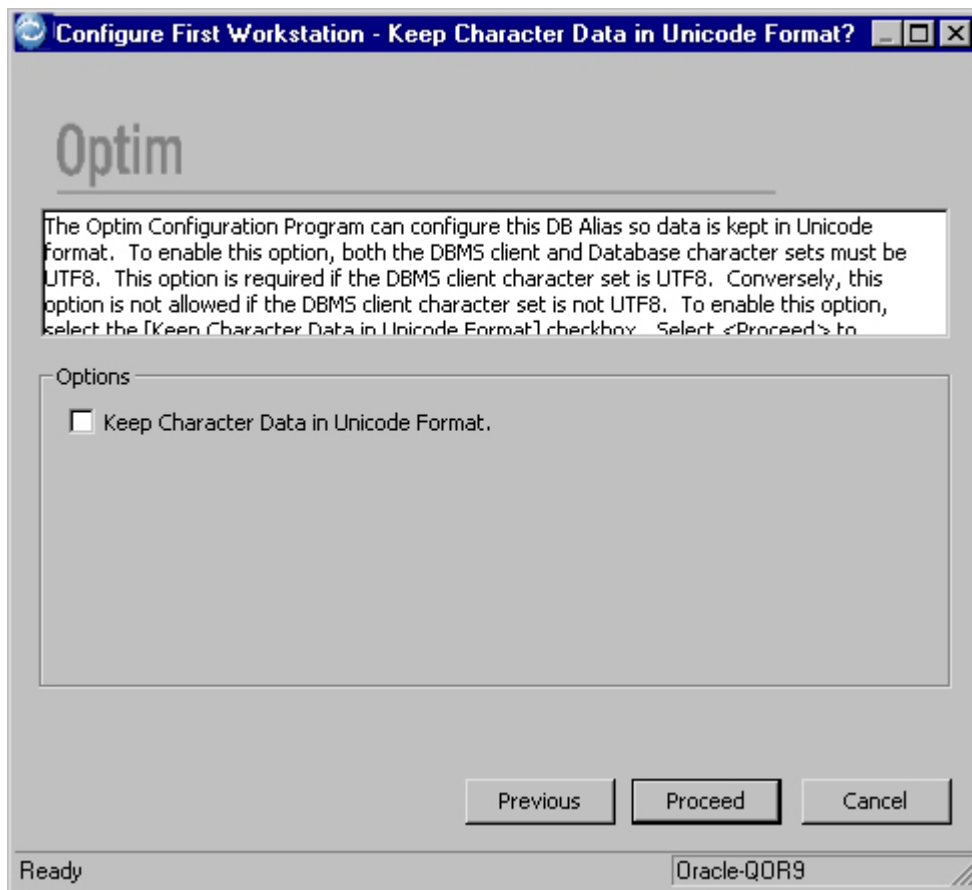
If the Optim Directory is in Unicode format and you are creating a DB Alias for a DBMS for which Optim supports Unicode (except SQL Server) or multi-byte, you must indicate the character format of the DB Alias. If the DB Alias uses a single connection with the Optim Directory, the Optim Directory and DB Alias must use the same character format.

An Optim Directory in multi-byte format supports multi-byte DB Aliases only. If the Directory is multi-byte, the DB Alias will be set to multi-byte format; however, you must respond to the “Round Trip Issues with Multi-byte Format for a DB Alias” on page 99 dialog.

Note: If the DB Alias represents the database in which the Optim Directory resides, the Keep Character Data in Unicode Format and Specify Character Set of DB Alias Data dialogs are displayed after the Share Connection Information for the Current Database dialog. Read “Share Connection Information” on page 94.

Keep Character Data in Unicode Format

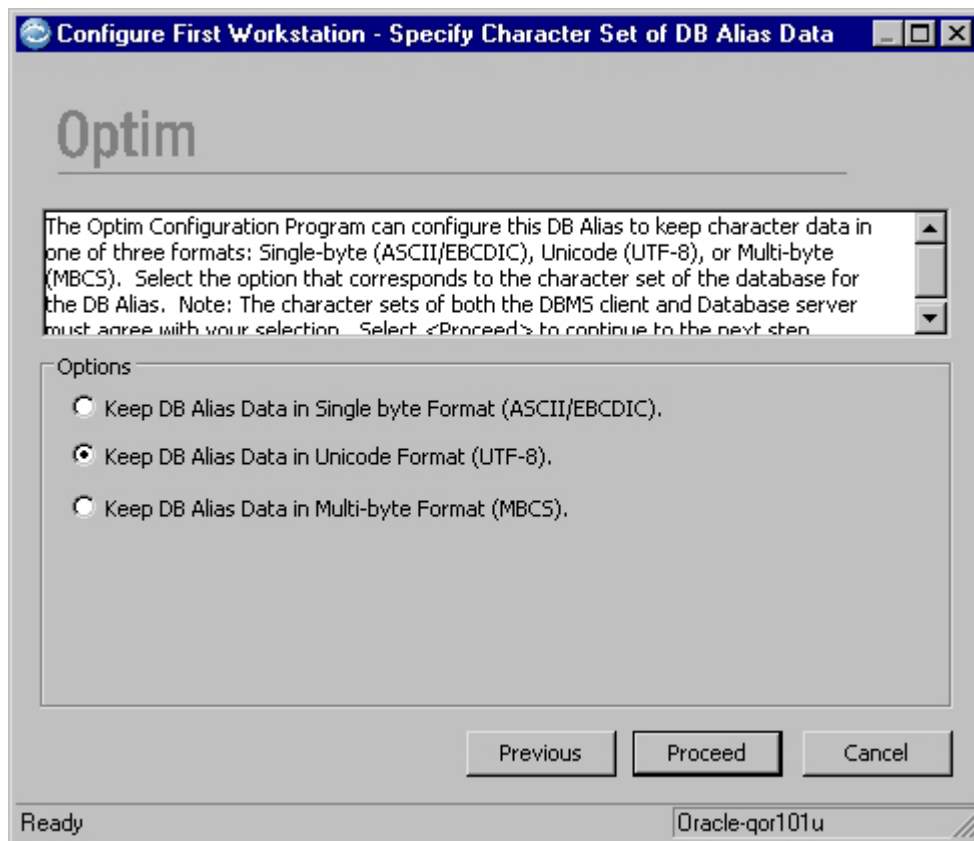
If you are creating an Optim Directory in a DBMS for which Optim supports Unicode, you are prompted to indicate whether the DB Alias data is kept in Unicode format.



Specify Character Set of DB Alias Data

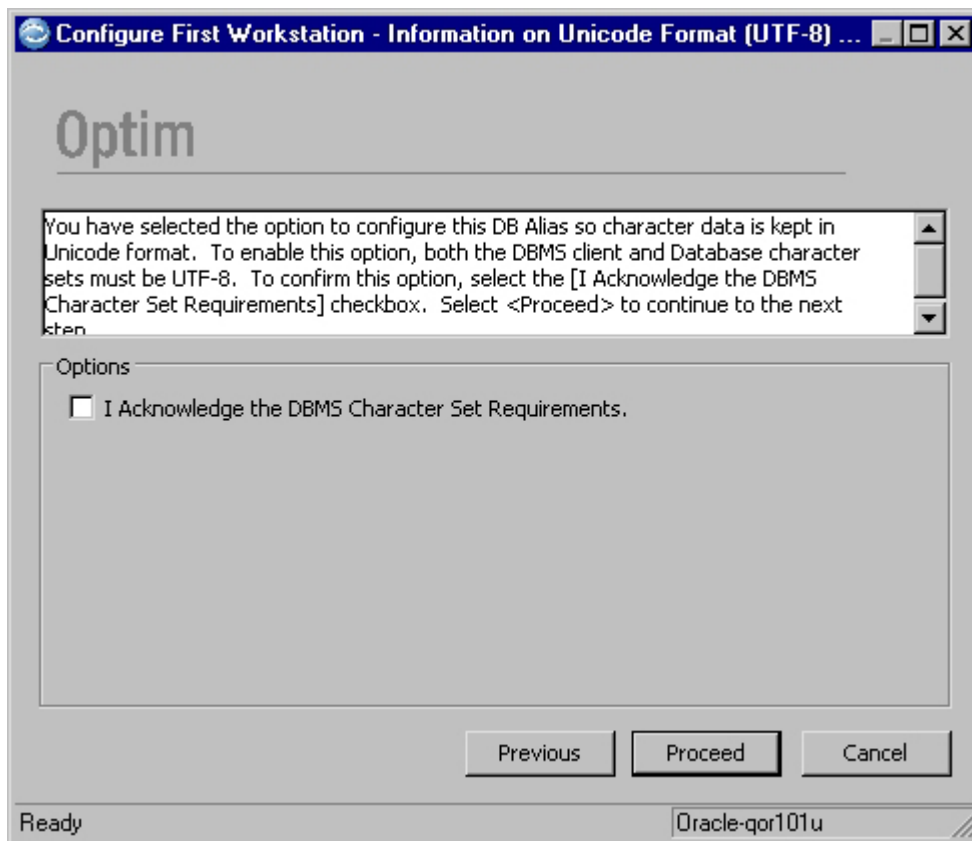
If Optim supports Unicode for the DB Alias DBMS, you are prompted to indicate the format in which the DB Alias should store data: single-byte or Unicode.

Note: The character sets of the DBMS client and the database server must match your selection.



Information on Unicode Format (UTF-8)

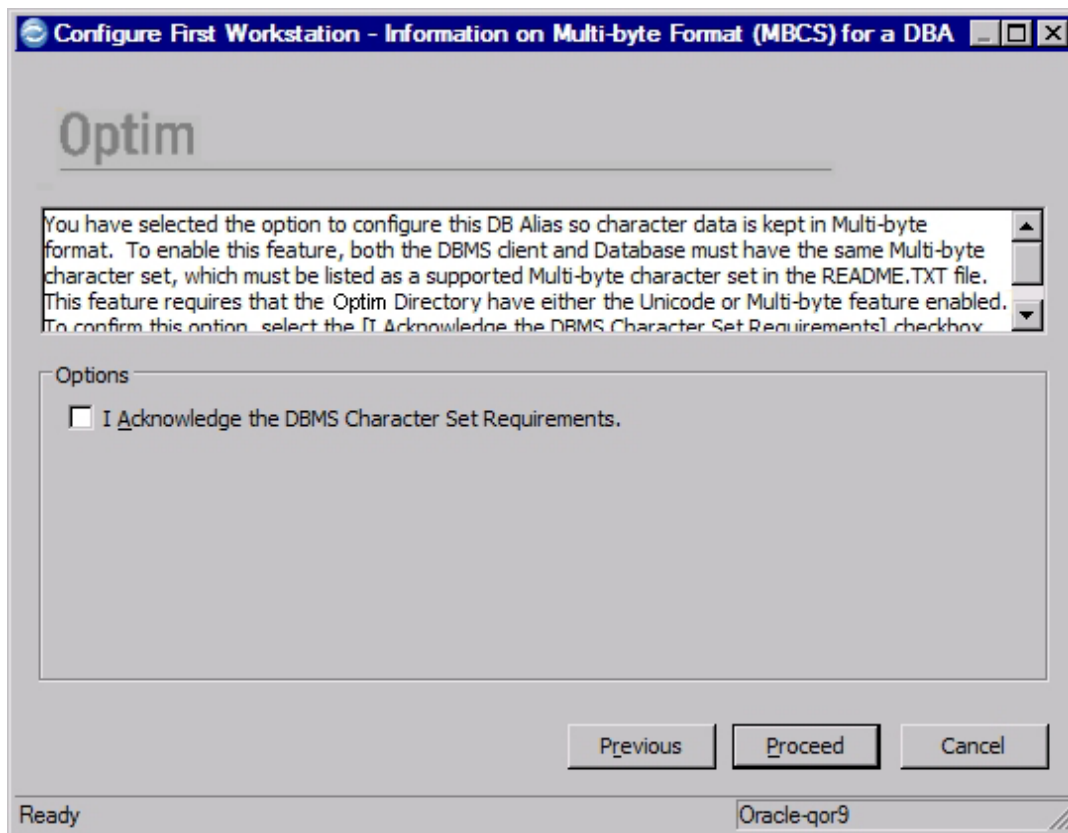
If you select Unicode format in the Specify Character Set of DB Alias Data dialog, you are prompted to acknowledge that the DBMS client and database character sets must be Unicode.



Information on Multi-byte Format (MBCS) for a DB Alias

If you select multi-byte format in the Specify Character Set of DB Alias Data dialog, you are prompted to acknowledge the following DBMS character set requirements for multi-byte:

- Both the DBMS client and database must have the same supported multi-byte character set.
- The Optim Directory must be in multi-byte format.



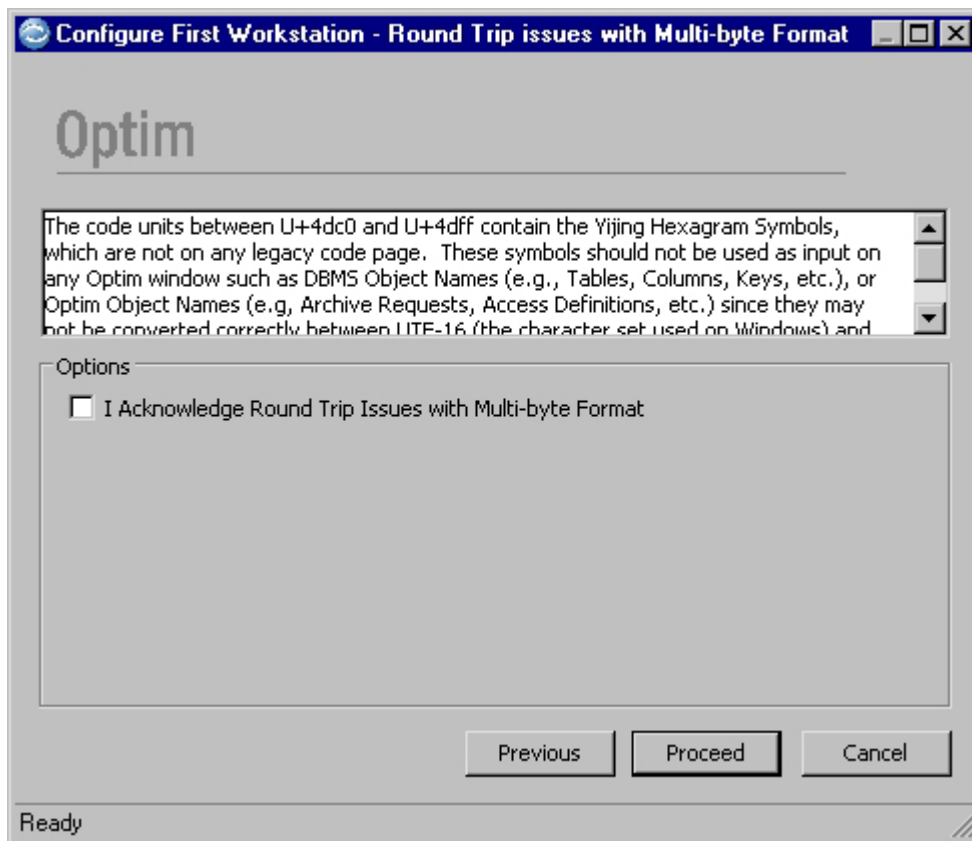
Round Trip Issues with Multi-byte Format for a DB Alias

After you acknowledge the DBMS character set requirements for a DB Alias in multi-byte format, or if the Optim Directory is in multi-byte format, you are prompted to acknowledge multi-byte round trip conversion issues.

Optim uses the Unicode character set in dialogs and to process data. In some multi-byte character sets (such as Oracle JA16SJIS), multiple characters are mapped to the same Unicode character and/or some Unicode characters are mapped to the same multi-byte character. When these characters are converted from Unicode to multi-byte plus multi-byte to Unicode or multi-byte to Unicode plus Unicode to multi-byte, the original character may not be returned. This two-way conversion is considered a round-trip and identifies this situation.

Note: To avoid round-trip issues with multi-byte data, do not use multi-byte characters in your source data that will result in ambiguous conversions from Unicode.

Optim provides a Product Option (on the **Database** tab) and a Personal Option (on the **Database** tab) that determine how to handle round-trip conversion issues when processing data in a multi-byte database.

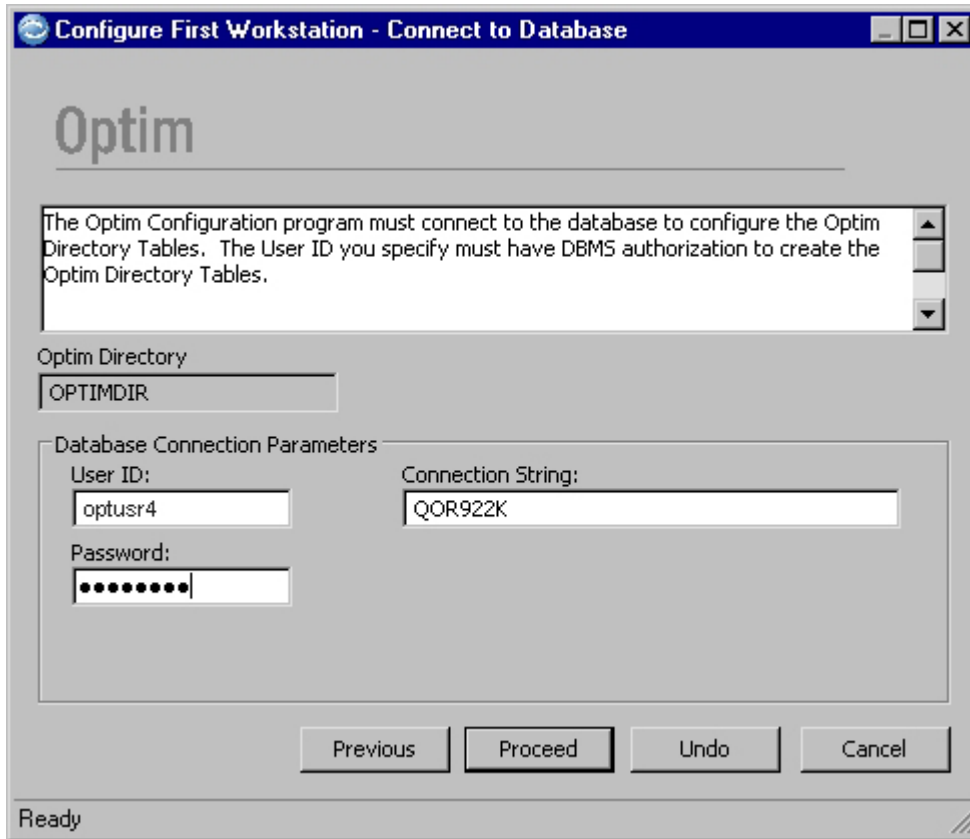


Register DB Alias

The Configuration program creates a registry entry for subsequent access to the database. Unless the connection is shared with the Optim Directory, you must provide, on the Connect to Database dialog, information needed for this registry entry.

Connect to Database

When the Connect to Database dialog opens, **User ID**, **Password**, and **Connection String** are populated with any previously entered values.



DB Alias

Name of the DB Alias.

Database Connection Parameters

User ID

Enter the User ID (up to 30 characters) that the DBMS requires to allow access to the Optim Directory database instance.

Note: For security and other reasons, a User ID with privileges different from those required to configure the server may be desirable.

Password

Enter the password (up to 30 characters) that corresponds to the specified User ID.

Connection String

String (or name) that allows the workstation to access the Optim Directory database. The DBMS uses this connection string to recognize the database. This value was entered earlier in the process and cannot be edited.

DB Name

Name that identifies the database for the DB Alias. This name is assigned when the database is created.

Note: The database name applies to Sybase ASE, SQL Server, and Informix and refers to a particular database for a given server that is referenced by the DB Alias.

Always Ask for Password

Select this check box to require a password each time you connect to the database. If you clear this check box, you need not supply a password on future attempts to connect to the database.

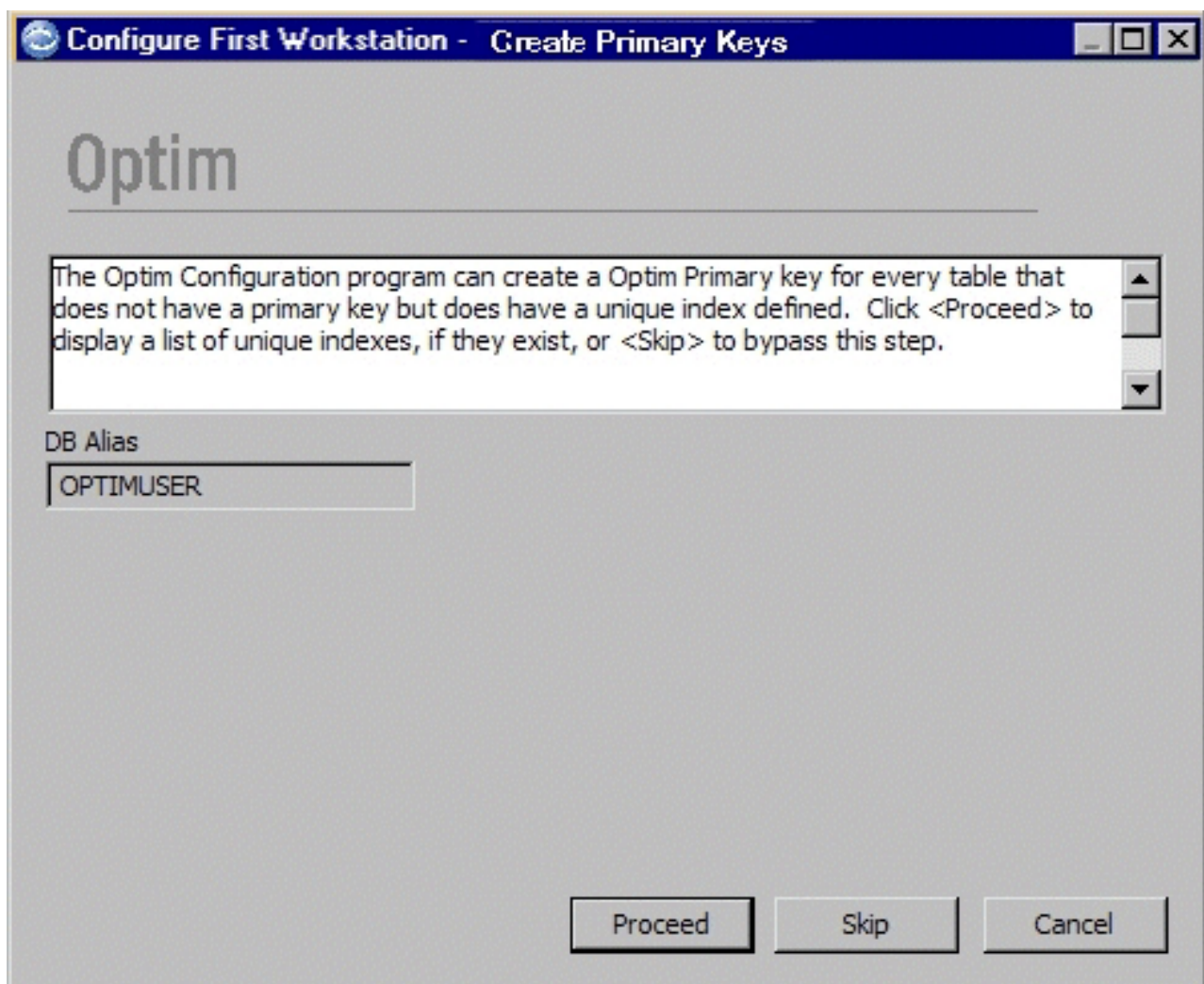
Note: This option is selected and unavailable if you selected the **Always Require a Password for this Database** option.

This completes the steps for creating the DB Aliases. Next, you create Optim Primary Keys for databases you want to use with Optim.

Create Primary Keys

In some cases, primary keys are required to extract and insert data. Certain tables in the database may not have primary keys, but may have unique indexes. You can use the Configuration program to create Optim Primary Keys for these tables. Optim Primary Keys are stored in the Optim Directory and supplement primary keys defined to the database.

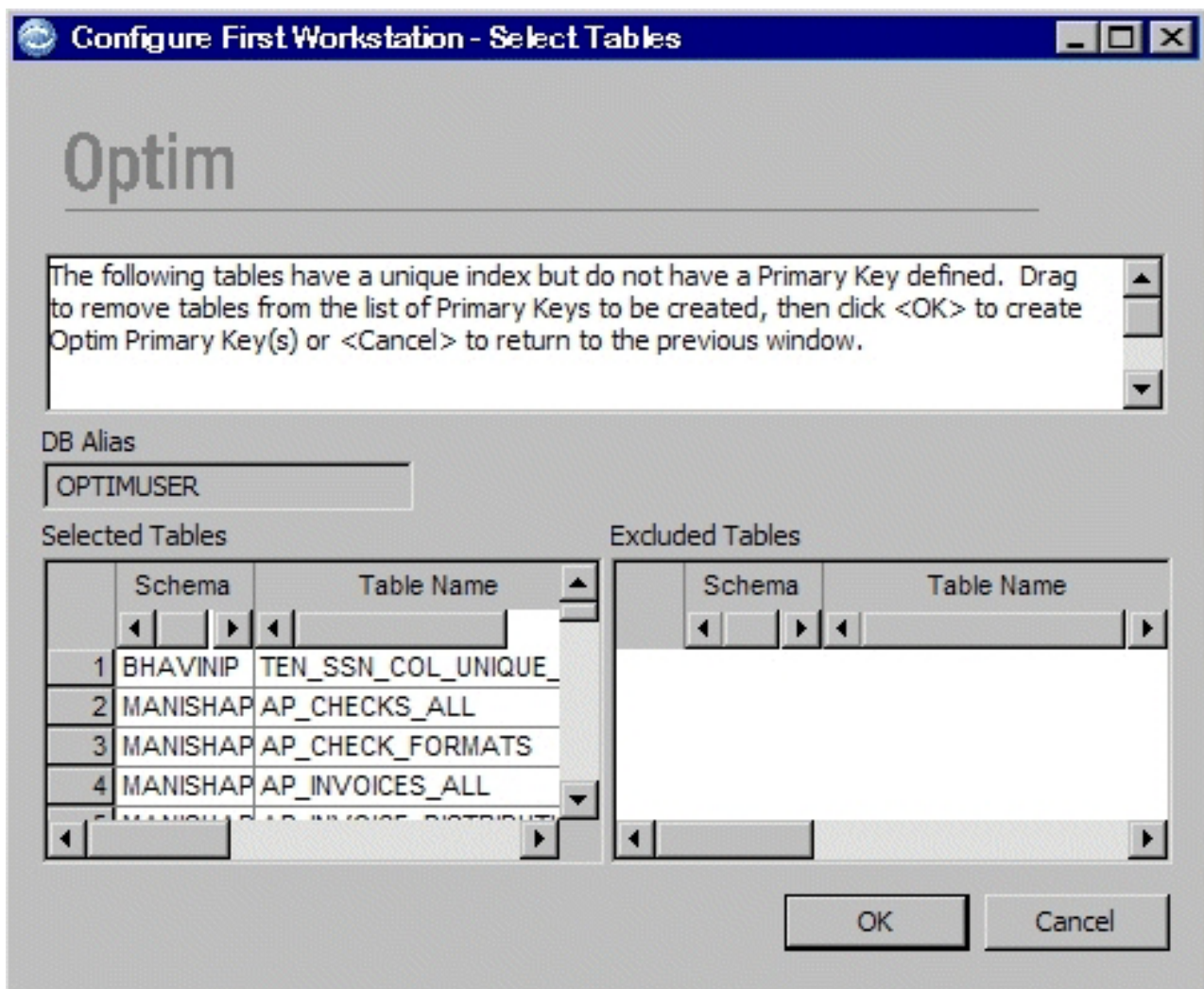
Use the Create Primary Keys dialog to confirm the DB Alias for the database tables that require Optim Primary Keys.



Note: You can also create Optim Primary Keys on a table-by-table basis.

Select Tables

The Select Tables dialog allows you to select tables for creating Optim Primary Keys.



The Select Tables dialog includes:

DB Alias

DB Alias associated with the list of tables.

Selected Tables

List of tables selected for creating primary keys. To remove a table from the list, drag the table name to **Excluded Tables**.

Creator ID

Identifier for the table. (Creator ID in DB2, Schema Name in Oracle, and Owner ID for SQL Server, Sybase ASE, and Informix.)

Table Name

Name of the table.

Index Name

Name of the unique index.

Excluded Tables

List of excluded tables available for creating primary keys. To select an excluded table, drag the table name to **Selected Tables**.

Creator ID

Identifier for the table. (Creator ID in DB2, Schema Name in Oracle, and Owner ID for SQL Server, Sybase ASE, or Informix.)

Table Name

Name of the table.

Index Name

Name of the unique index.

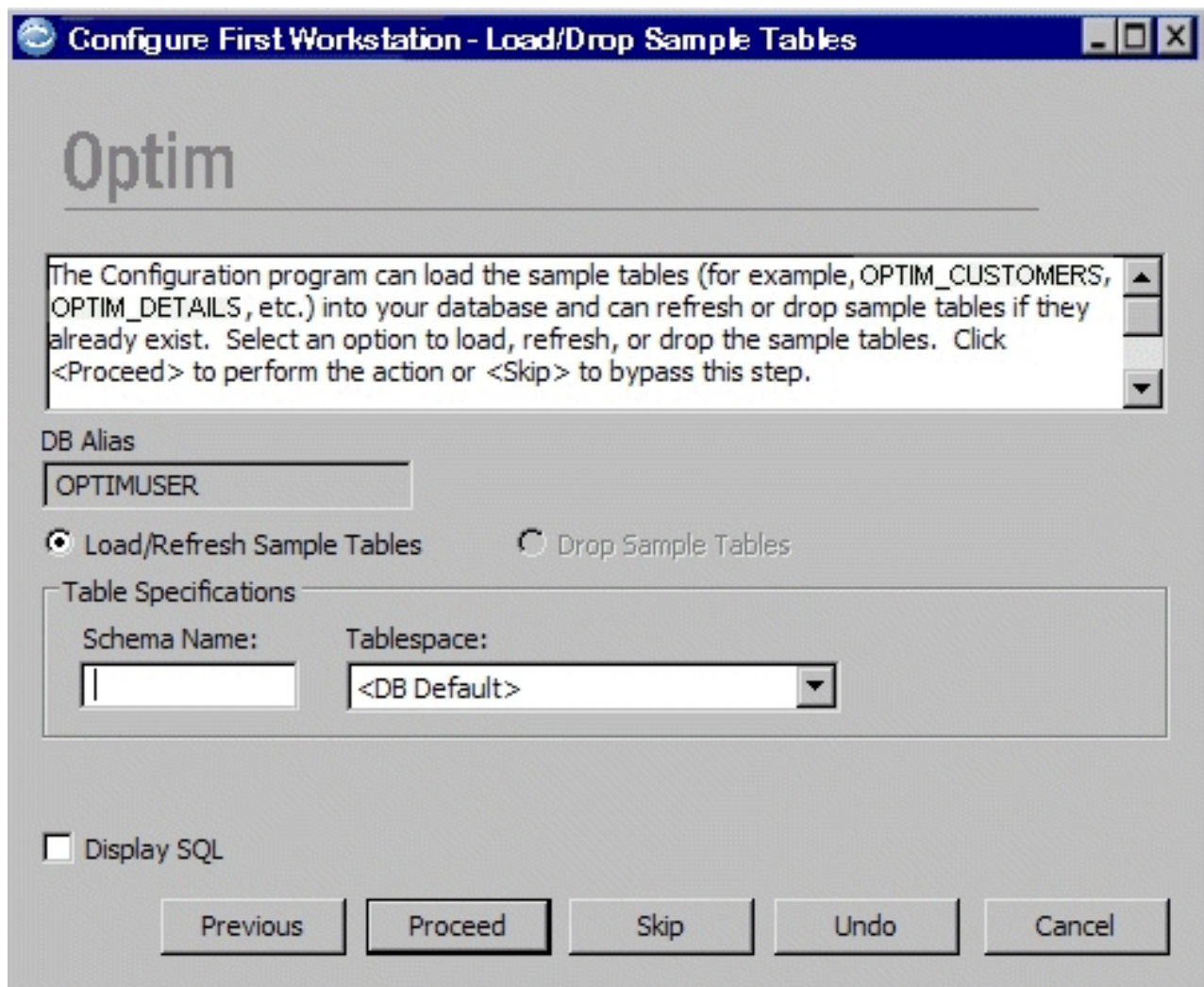
When the process completes, you are prompted to load the sample database tables.

Load Sample Tables

This software is distributed with sample data tables. You can use these tables for training and to experiment with sample data before applying the software to your own database tables. Generally, the sample data is loaded when you configure the first workstation, but you also can load or refresh that data by selecting **Load/Drop Sample Data** from the **Tasks** menu.

Load/Drop Sample Tables

The Load/Drop Sample Tables dialog allows you to provide the identifier (Creator ID, Schema, or Owner ID) and tablespace for the sample tables before they are loaded.



The Load/Drop Sample Tables dialog displays the following:

DB Alias

DB Alias for sample tables. If you do not want to load sample tables for this DB Alias, click **Skip**.

Load/Refresh Sample Tables

Select this option to load or refresh sample tables. This option is available and selected when Load/Drop Sample Tables opens.

Drop Sample Tables

Select this option to drop previously loaded sample tables. This option is unavailable when not applicable, such as when you are initially loading those tables.

Sample Table Specifications

Schema Name

Enter an identifier for the sample tables. This element is labeled Creator ID for DB2, Schema Name for Oracle, and Owner ID for an SQL Server, Sybase ASE, or Informix database.

Tablespace

Select a tablespace to store the tables. To select from a list, click the down arrow. Tablespace is not available if you select **Drop Sample Tables**.

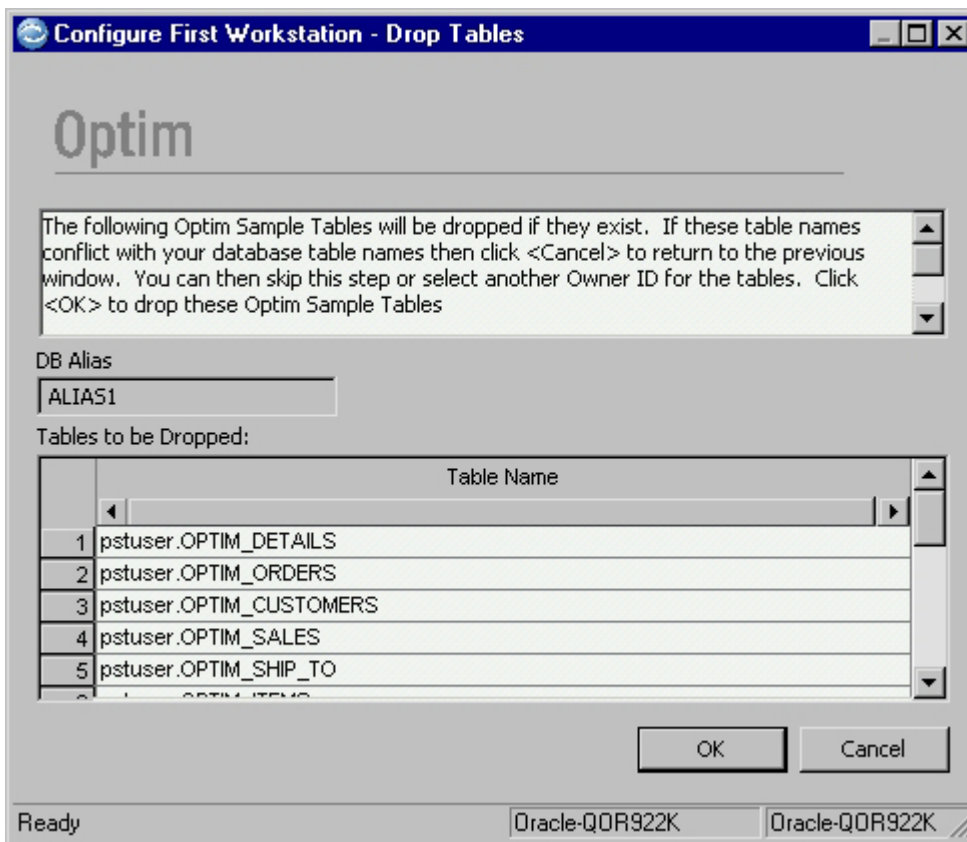
Display SQL

Select this check box to display SQL statements before loading or dropping the tables.

Note: If you are loading or refreshing the sample tables, click **Proceed** to open the Drop Tables dialog.

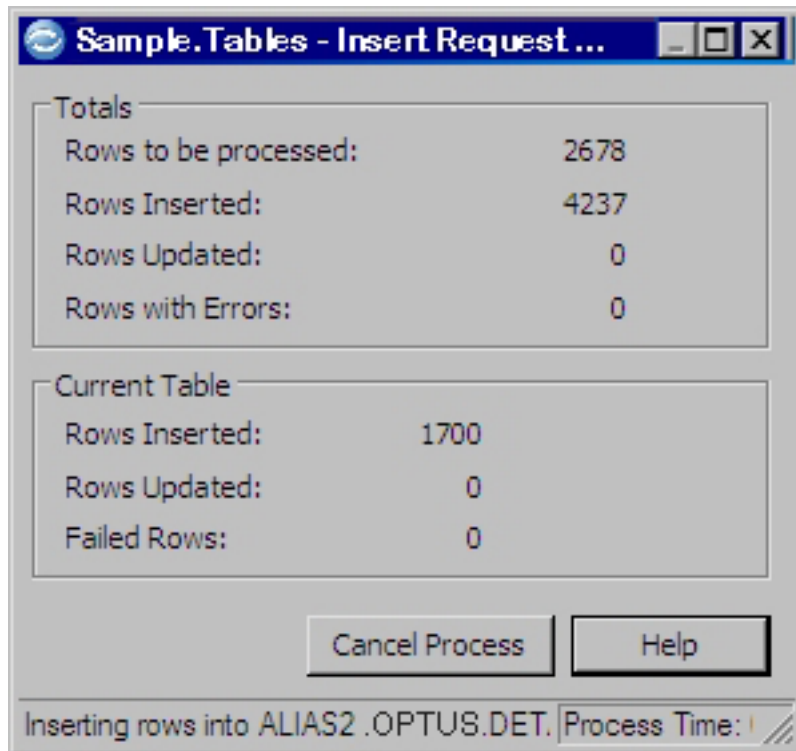
Drop Tables

The Drop Tables dialog allows you to review a list of the sample tables that are to be dropped within the selected DB Alias.



Use the Drop Tables dialog to ensure that the names of the sample tables do not conflict with your other table names. If there are conflicts, click **Cancel**; otherwise, click **OK**.

During the process that drops sample tables and loads/refreshes sample tables, the Configuration program displays the Insert Request Progress dialog.



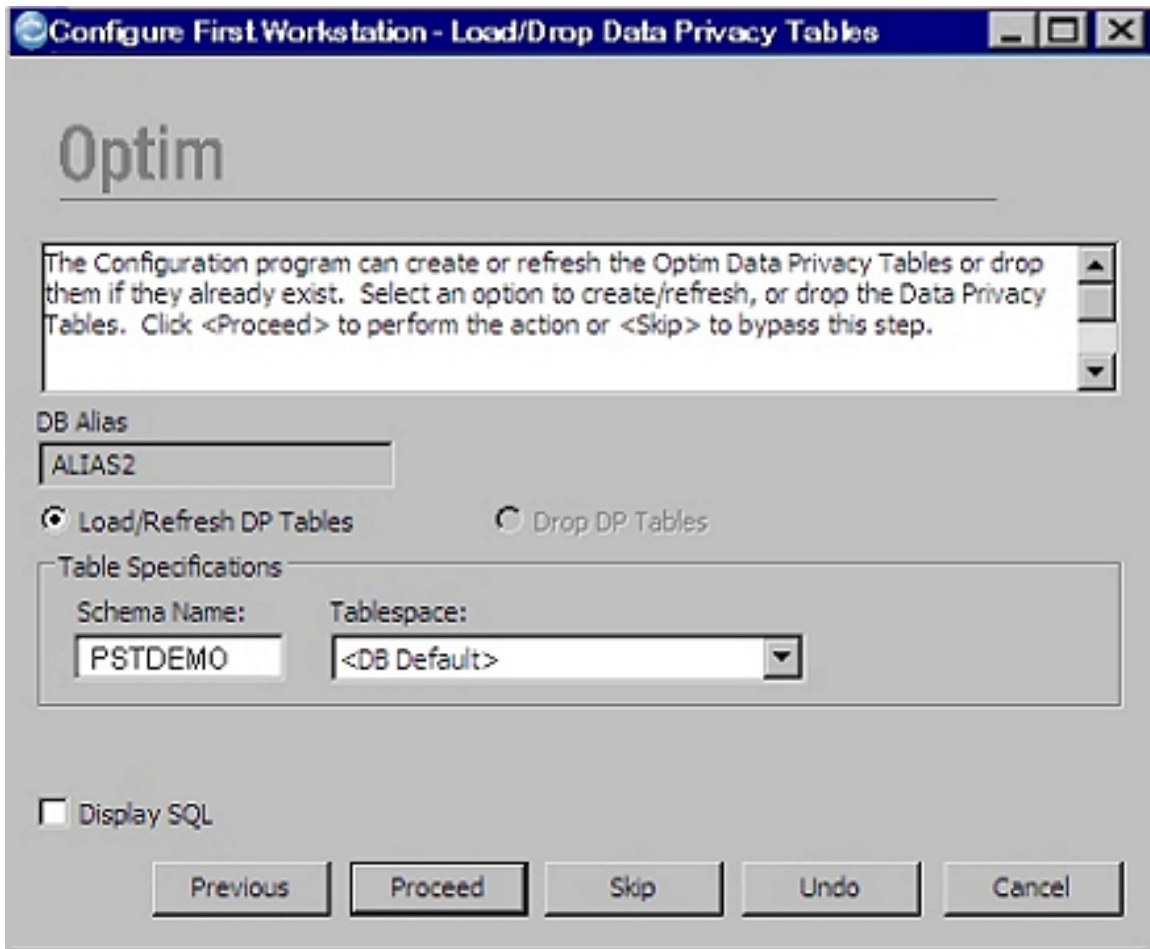
Load Data Privacy Data Tables

Data privacy data tables are available to clients who have an Optim Data Privacy License; thus, the instructions that follow apply only to those clients.

Data privacy tables allow you to mask company and personal data — such as employee names, customer names, social security numbers, credit card numbers, and e-mail addresses — to generate transformed data that is both valid and unique. Generally, these data privacy tables are loaded when you configure the first workstation, but you also can load or refresh them by selecting **Load/Drop Data Privacy Data** from the **Tasks** menu.

Load/Drop Data Privacy Tables

The Load/Drop Data Privacy Tables dialog allows you to provide the identifier (Creator ID, Schema, or Owner ID) and tablespace for the data privacy tables before they are loaded.



The Load/Drop Data Privacy Tables dialog displays the following:

DB Alias

DB Alias for the data privacy tables. If you do not want to load data privacy tables for this DB Alias, click **Skip**.

Load/Refresh DP Tables

Select this option to load or refresh data privacy tables. This option is available and selected when Load/Drop Data Privacy Tables opens.

Drop DP Tables

Select this option to drop previously loaded data privacy tables. This option is unavailable when not applicable, such as when you are initially loading those tables.

Table Specifications

Schema Name

Enter an identifier for the data privacy tables. This element is labeled Creator ID for DB2, Schema Name for Oracle, and Owner ID for an SQL Server, Sybase ASE, or Informix database.

Tablespace

Select a tablespace to store the tables. To select from a list, click the down arrow. Tablespace is not available if you select **Drop DP Tables**.

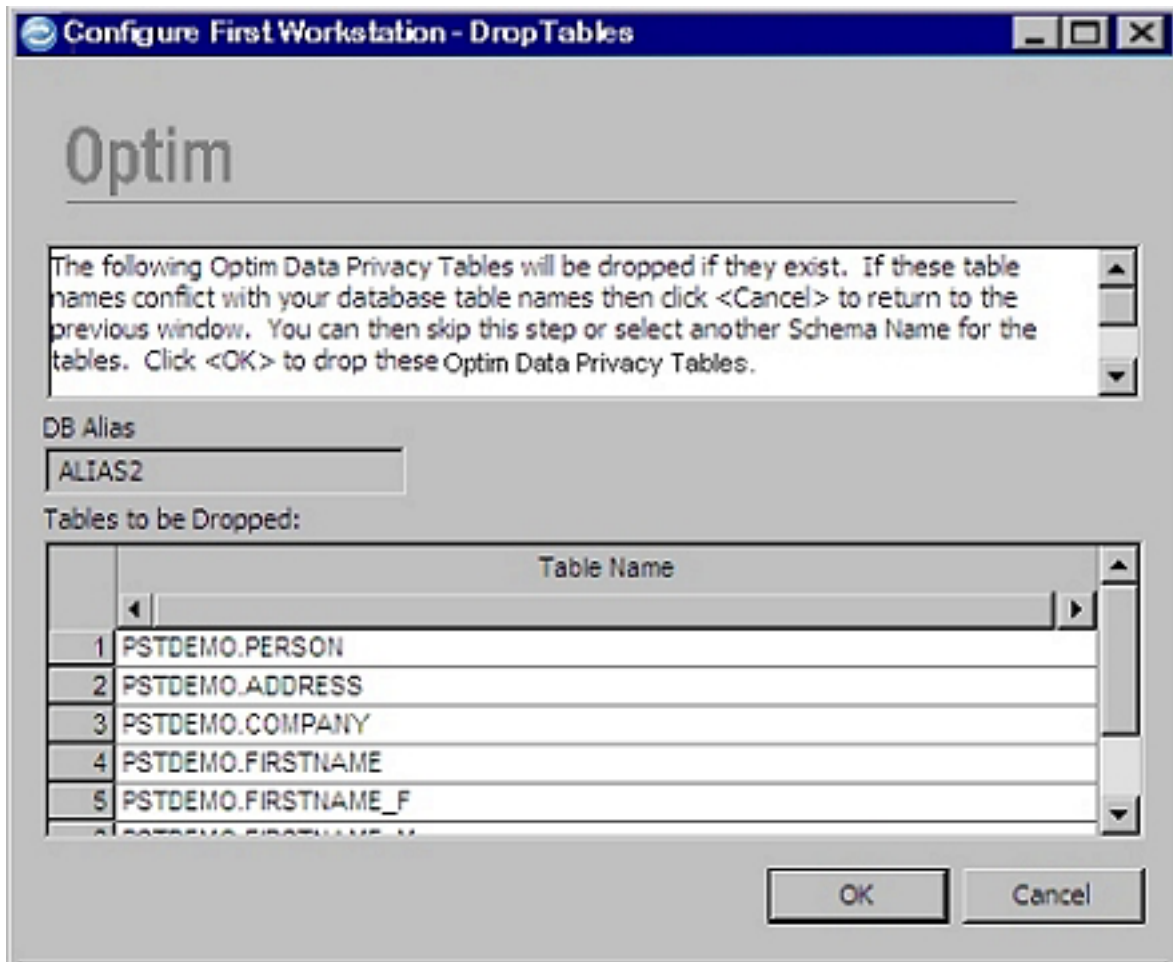
Display SQL

Select this check box to display SQL statements before creating or dropping the tables.

Note: If you are loading or refreshing the data privacy tables, click **Proceed** to open the Drop Tables dialog.

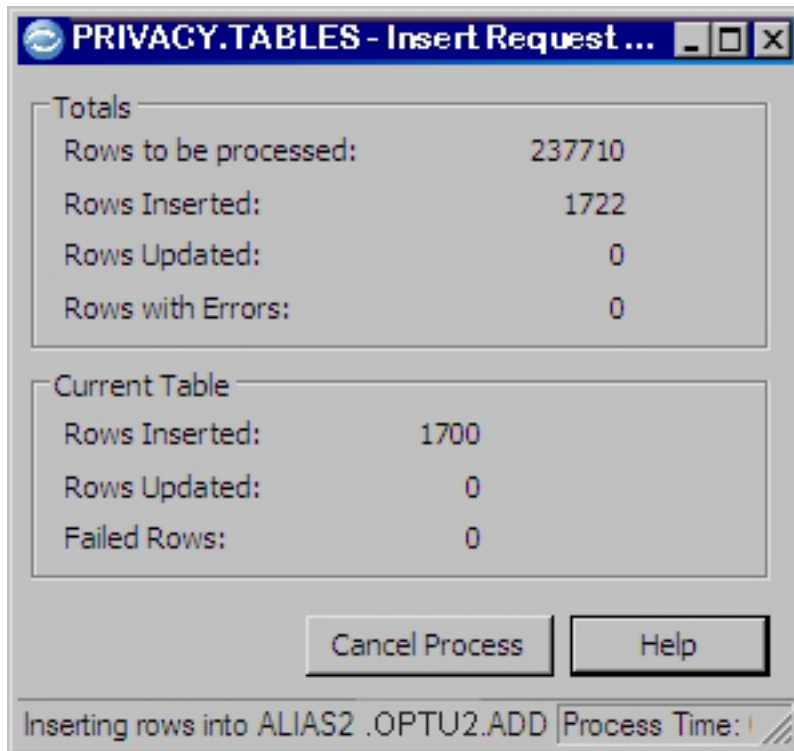
Drop Tables

The Drop Tables dialog allows you to review the list of the data privacy tables that are to be dropped within the selected DB Alias.



Use the Drop Tables dialog to ensure that the names of the data privacy tables do not conflict with your other table names. If there are conflicts, click **Cancel** and specify a different schema name for the tables; otherwise, click **OK**.

During the process that drops data privacy tables and loads/refreshes tables, the Configuration program displays the Insert Request Progress dialog.



Create/Update Another DB Alias

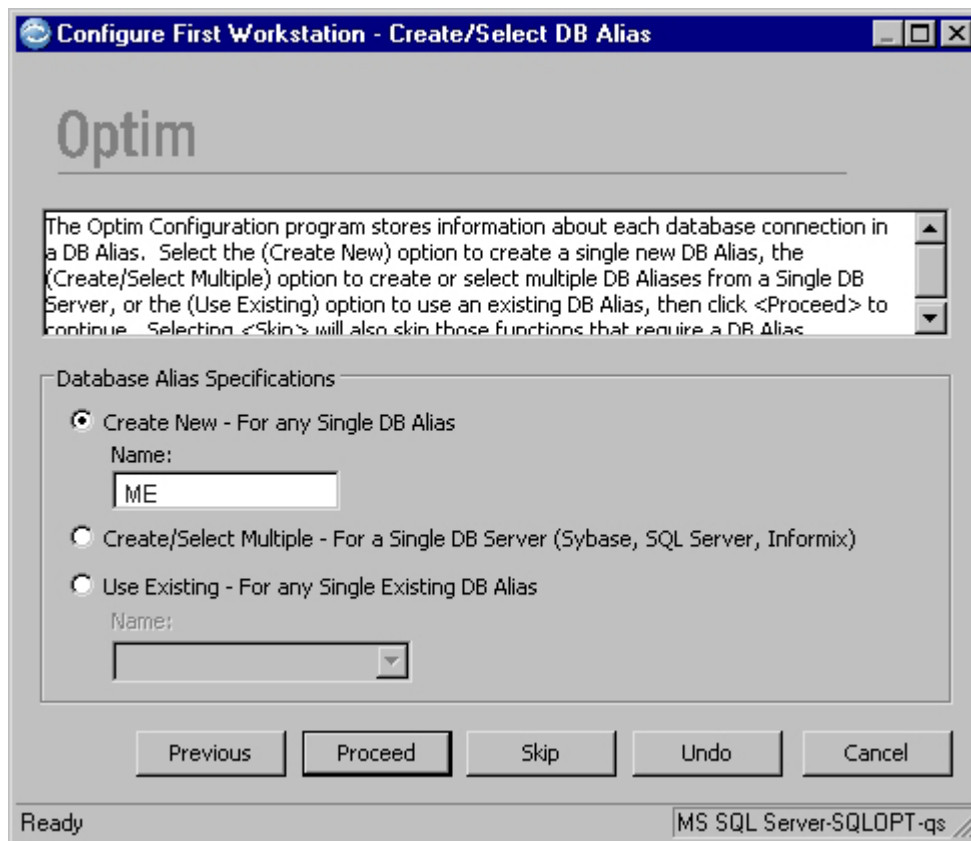
At this point, the steps for creating a new DB Alias are complete. To use Optim with additional databases, you must create corresponding DB Aliases. After you load the sample tables and the data privacy tables, the Configuration program prompts you to create another DB Alias. Your positive response opens the Create/Select DB Alias dialog to repeat the configuration process for another database.

Note: If the DB Alias you created is for a DB2 z/OS database, the Create Copies of DB2 MVS™ Relationships dialog displays, instead of the prompt to create another DB Alias. That dialog allows you to copy the DB2 relationships into the Optim Directory to reduce the run time when accessing DB2 tables, as described in “Create Copies of DB2 z/OS Relationships” on page 209. After that task is completed, the Configuration program will prompt you to create another DB Alias, as indicated above.

After all DB Aliases are created, you can configure Personal and Product Options. Refer to “Configure Options” on page 124.

Create Multiple DB Aliases

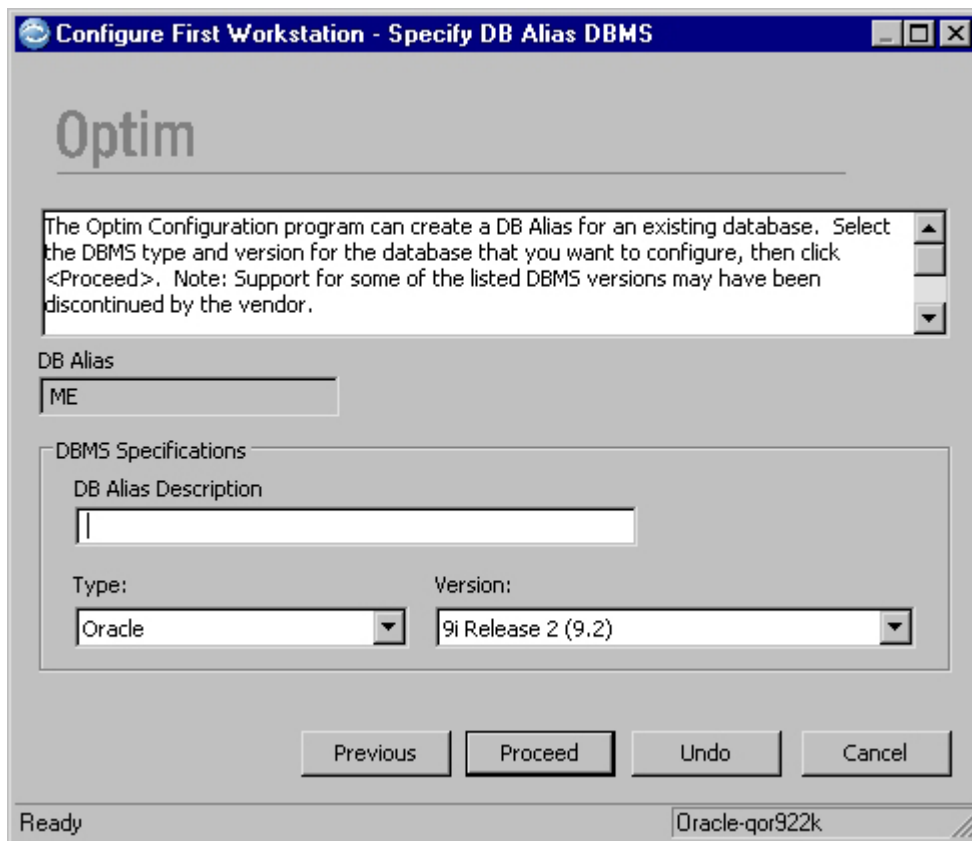
If you are using SQL Server, Sybase ASE, or Informix, you may have several databases on one server. You can create multiple DB Aliases, one for each database, in a single operation.



Although you can select the **Create New** option and follow the steps for each database, the **Create/Select Multiple** option saves time by allowing you to set specifications for each database at the same time.

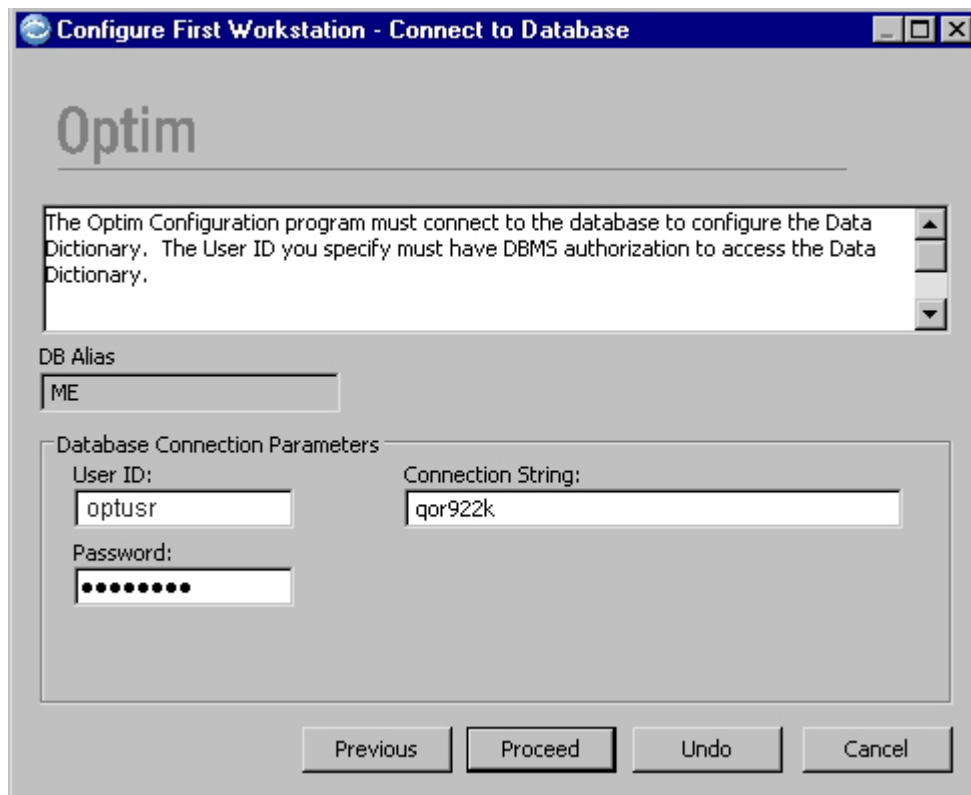
On the Create/Select DB Alias dialog, select the **Create/Select Multiple** option and click **Proceed**.

The Configuration program opens the Specify DB Alias DBMS dialog.



Select the DBMS Type and Version and click **Proceed**.

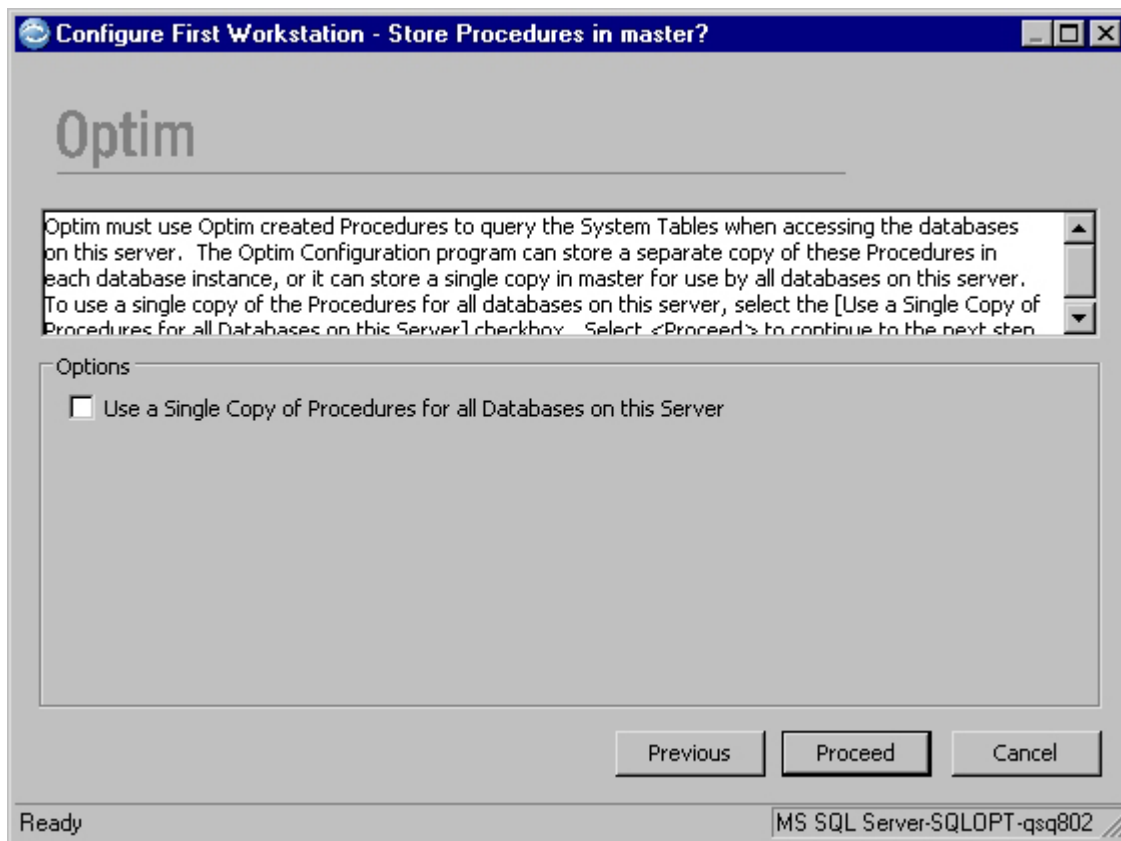
The Connect to Database dialog is displayed next.



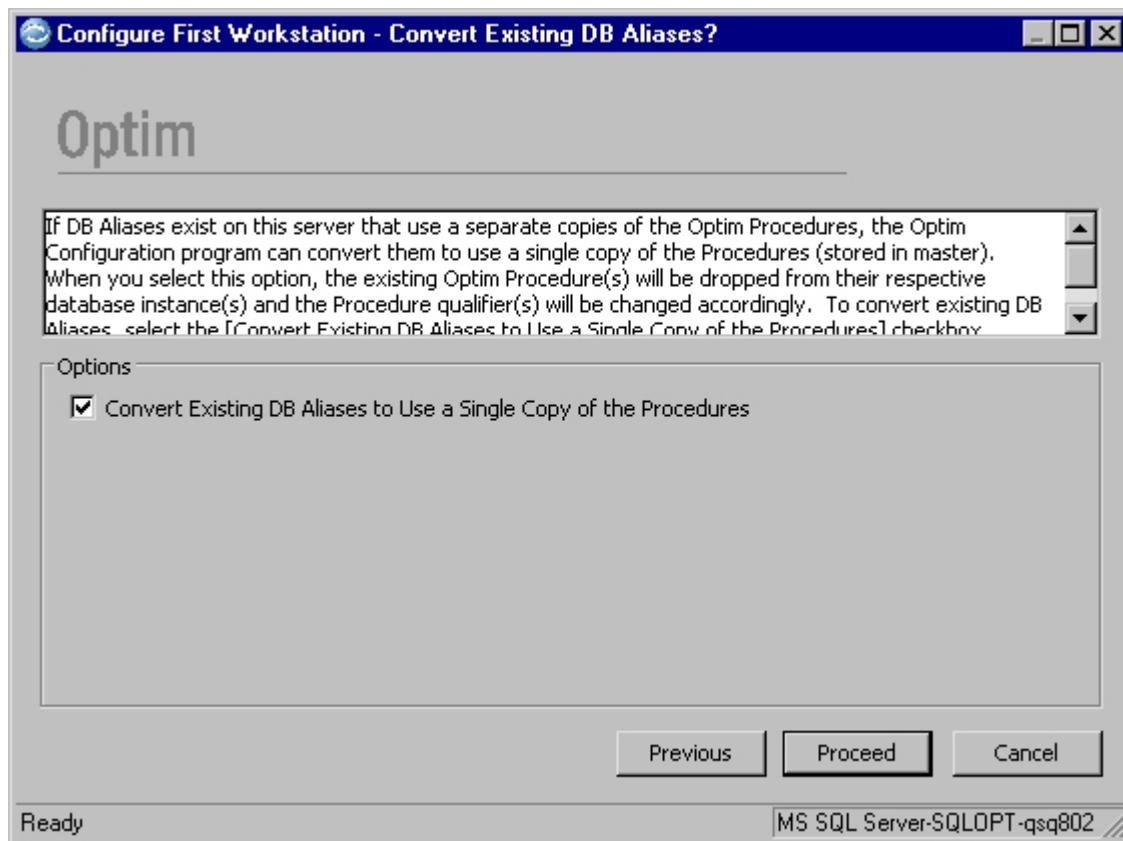
Specify a User ID and Password with authority to connect to the master database on the server, and click proceed to open the Create Multiple DB Aliases dialog.

Note: For SQL Server, the User ID must have database owner (dbo) privileges to create or select multiple DB Aliases.

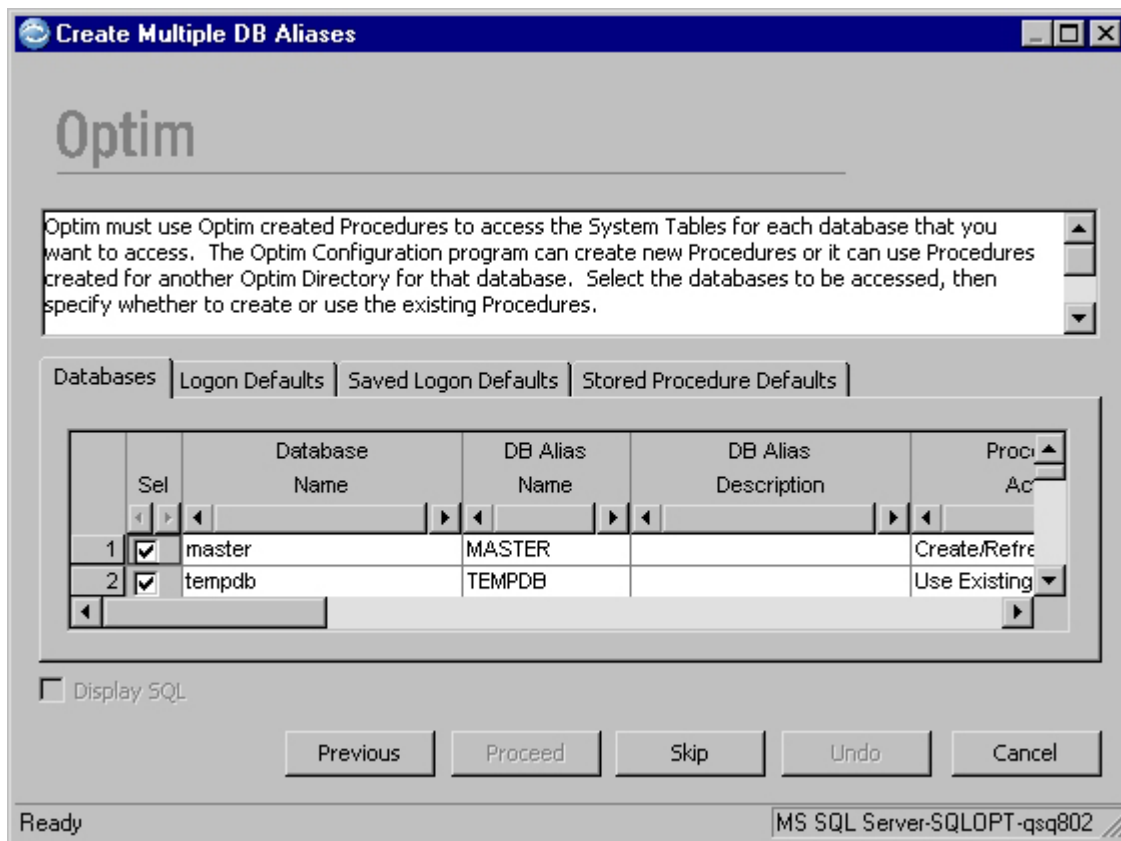
For Sybase ASE and SQL Server, you are prompted to share a single copy of the stored procedures.



If you select the check box to share stored procedures, you are prompted to convert existing DB Aliases to use the shared procedures.



Click proceed to open the Create Multiple DB Aliases dialog and enter the database information.



The Create Multiple DB Aliases dialog includes the following tabs.

Databases

A list of all databases that reside on the server. Enter explicit information for each database for which you want to create a DB Alias.

Logon Defaults

Enter default User ID and Password required to create or refresh stored procedures for each DB Alias. In some cases, this logon may have greater privileges than the Saved Logon Defaults.

Saved Logon Defaults

Enter the User ID and Password required to access the database. This information is saved to the Windows registry for the workstation being configured.

Stored Procedure Defaults

Enter the default Procedure Qualifier and Grant Authorization ID required to create/refresh stored procedures.

Note: The default values apply to all databases, unless otherwise specified on the **Databases** tab.

Databases Tab

The **Databases** tab on the Create Multiple DB Aliases dialog allows you to provide explicit information for each DB Alias.

Sel Select the check box to create a DB Alias for the database. If you do not want to create a DB Alias, clear the check box. This grid column is locked in position, so you can scroll to the left or right and still see the selections for the databases.

Note: If a DB Alias for a database exists, the grid row is protected and shaded.

Database Name

The name assigned to the database when it was created.

DB Alias Name

The identifier that allows the software to access the database. This name also serves as the high-level qualifier for database table names. This entry is required, and is populated with the database name in upper case, by default.

DB Alias Description

Text that describes or explains the purpose of the DB Alias.

Procedure Action

Options to create/refresh procedures or use existing procedures. To select an option, click the grid cell and click the down arrow.

Note: When creating procedures to be shared for access to all Sybase ASE or SQL Server databases on the server, this grid cell is protected. The first selected entry is displayed as Create/Refresh; other selected entries to use the shared stored procedures display Use Existing.

Procedure Qualifier

The high-level qualifier for stored procedures. If blank, the entry on the **Stored Procedure Defaults** tab is used. For Sybase ASE databases sharing stored procedures, the entry "sp_" is displayed and cannot be edited.

Grant Auth ID

An identifier for users authorized to maintain stored procedures. Specify a User ID, Group Name, or Public. If blank, the entry on the **Stored Procedure Defaults** tab is used.

Logon User ID

User ID (up to 30 characters) required to create/refresh stored procedures. If blank, the entry on the **Logon Defaults** tab is used.

Logon Password

The password (up to 30 characters) required to create/refresh stored procedures. If blank, the entry on the **Logon Defaults** tab is used.

Saved User ID

The User ID (up to 30 characters) required to logon using the DB Alias. This identifier is saved to the Windows registry of the workstation. If blank, the entry on the **Saved Logon Defaults** tab is used.

Saved Password

The password (up to 30 characters) required to logon using the DB Alias. If blank, the entry on the **Saved Logon Defaults** tab is used.

Note: You can change the Saved User ID and Saved Password when you configure options and when you set Personal Options.

Always Ask for Password

Select this check box to require a password each time you connect to the database. If you clear this check box, you need not supply a password on future attempts to connect to the database.

Create Primary Keys

Select this check box to create primary keys, as needed, for the database.

To create primary keys from within the Configuration program, select **Create Primary Keys** from the **Tasks** menu on the main window.

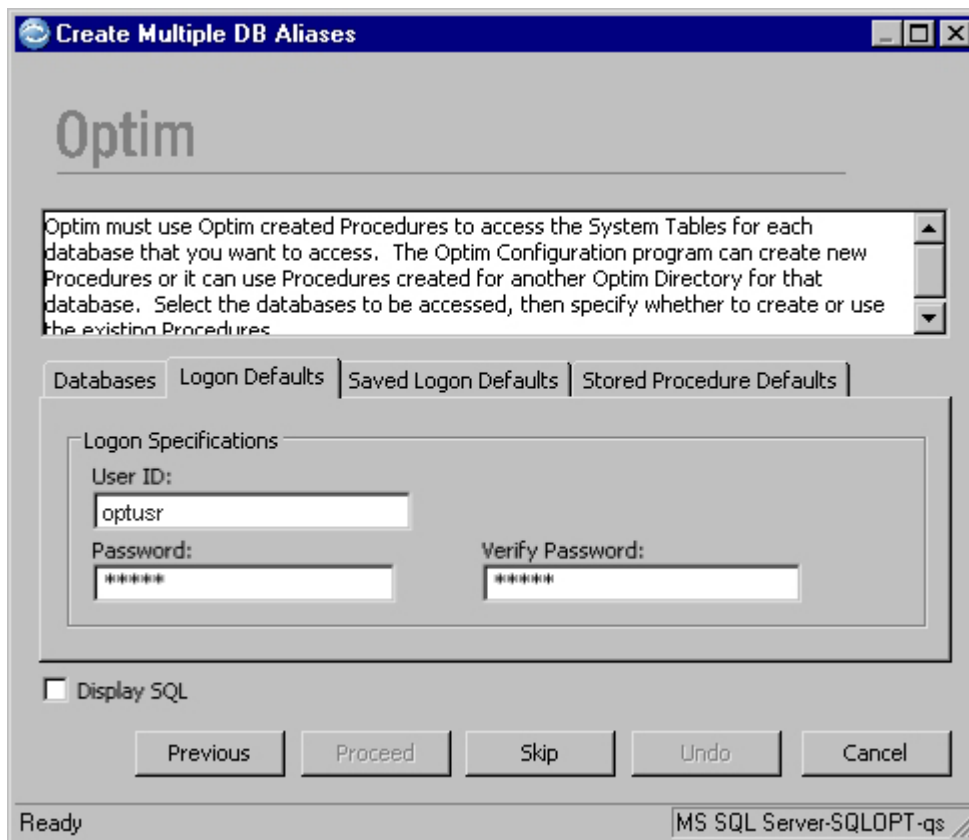
To create primary keys from within Optim, select **New** from the **File** menu and select **Primary Keys** from the **Definitions** submenu on the main window.

Display SQL

Select this check box to display SQL statements before creating or dropping stored procedures.

Logon Defaults Tab

Use the **Logon Defaults** tab to provide the default User ID and Password required to create/refresh stored procedures.

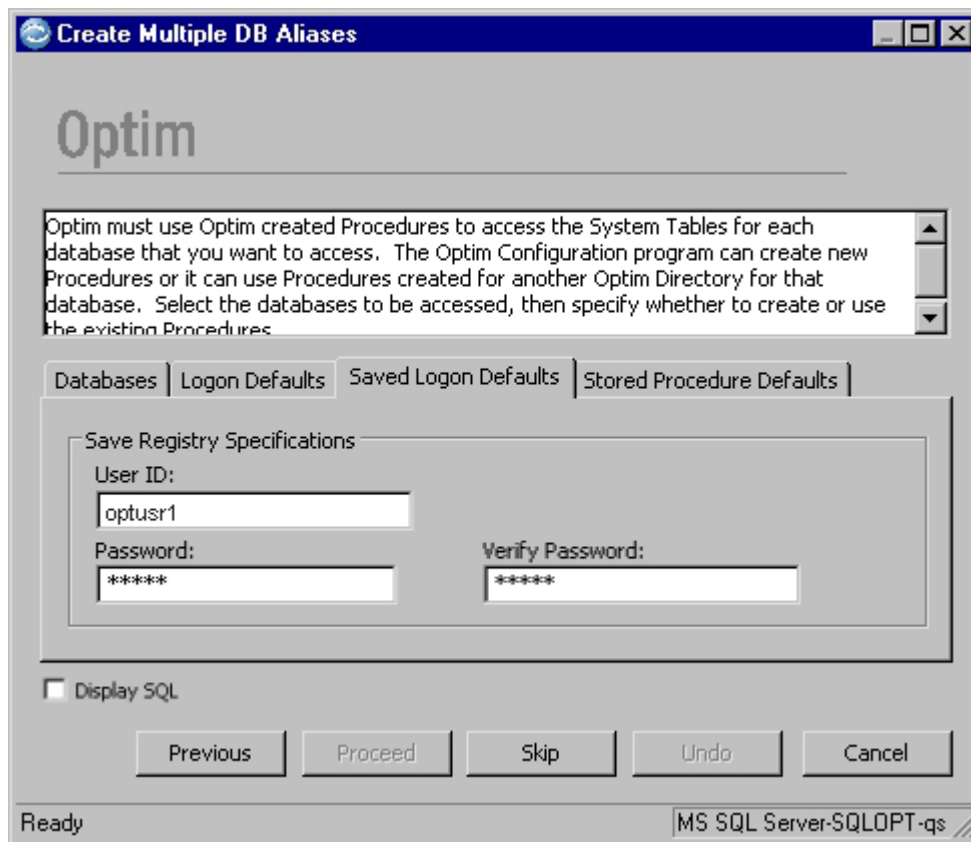


The entries on the **Logon Defaults** tab allow you to connect to the database while configuring a workstation. You must enter the password a second time for verification.

Note: The default logon information applies to all DB Aliases unless you provide explicit logon information on the **Databases** tab.

Saved Logon Defaults

Use the **Saved Logon Defaults** tab to provide the User ID and Password needed to access the DB Alias.



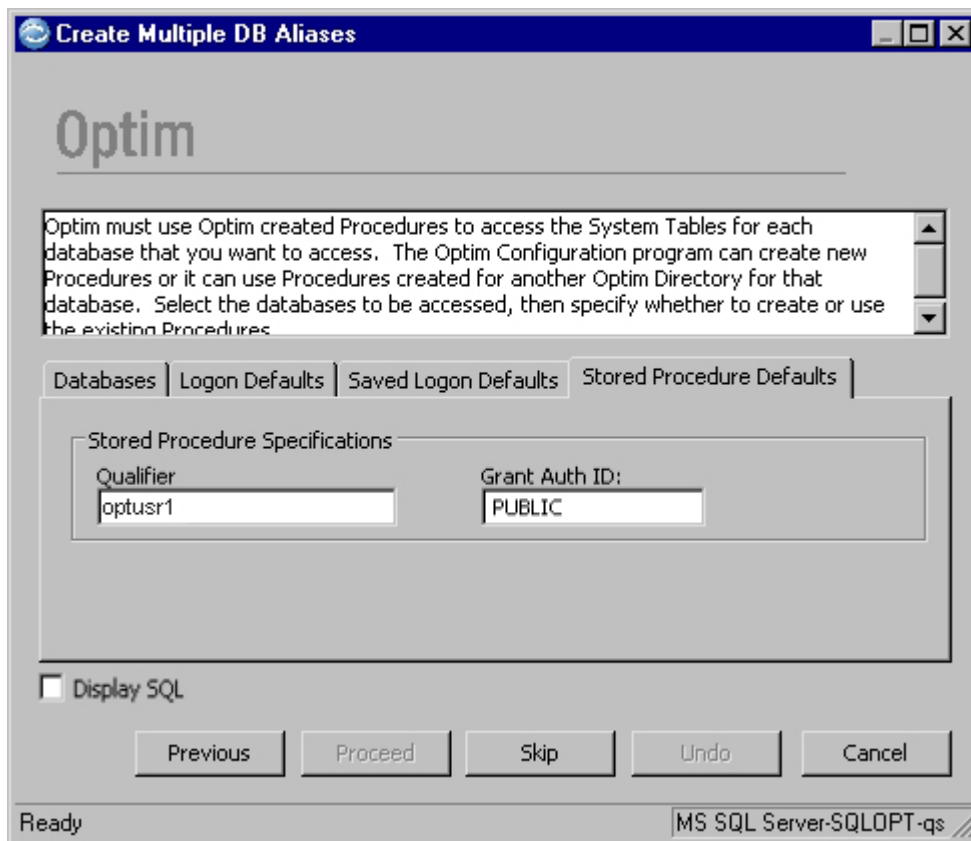
The entries on the **Saved Logon Defaults** tab allow you to save registry entries to access the databases. You must enter your password a second time for verification.

- To modify the saved User ID and Password from within the Configuration program, select **Configure Options** from the main window and edit Personal Options.
- To modify the User ID and Password from within Optim, select **Personal** from the **Options** menu on the main window and edit the **Logon** tab.

Note: The default saved logon information applies to all DB Aliases unless you provide explicit logon information on the **Databases** tab.

Stored Procedure Defaults

Use the **Stored Procedure Defaults** tab to provide the procedure Qualifier and Grant Auth ID required to create/refresh stored procedures.



Note: The default stored procedure information applies to all DB Aliases unless you provide explicit stored procedure information on the **Databases** tab.

When you enter the necessary information on each tab and click **Proceed**, the Configuration program connects to the database, catalogs the stored procedures, writes the registry entries, and optionally creates primary keys. These four steps are repeated automatically for each selected database. When complete, the next step is to configure security.

Optim Security

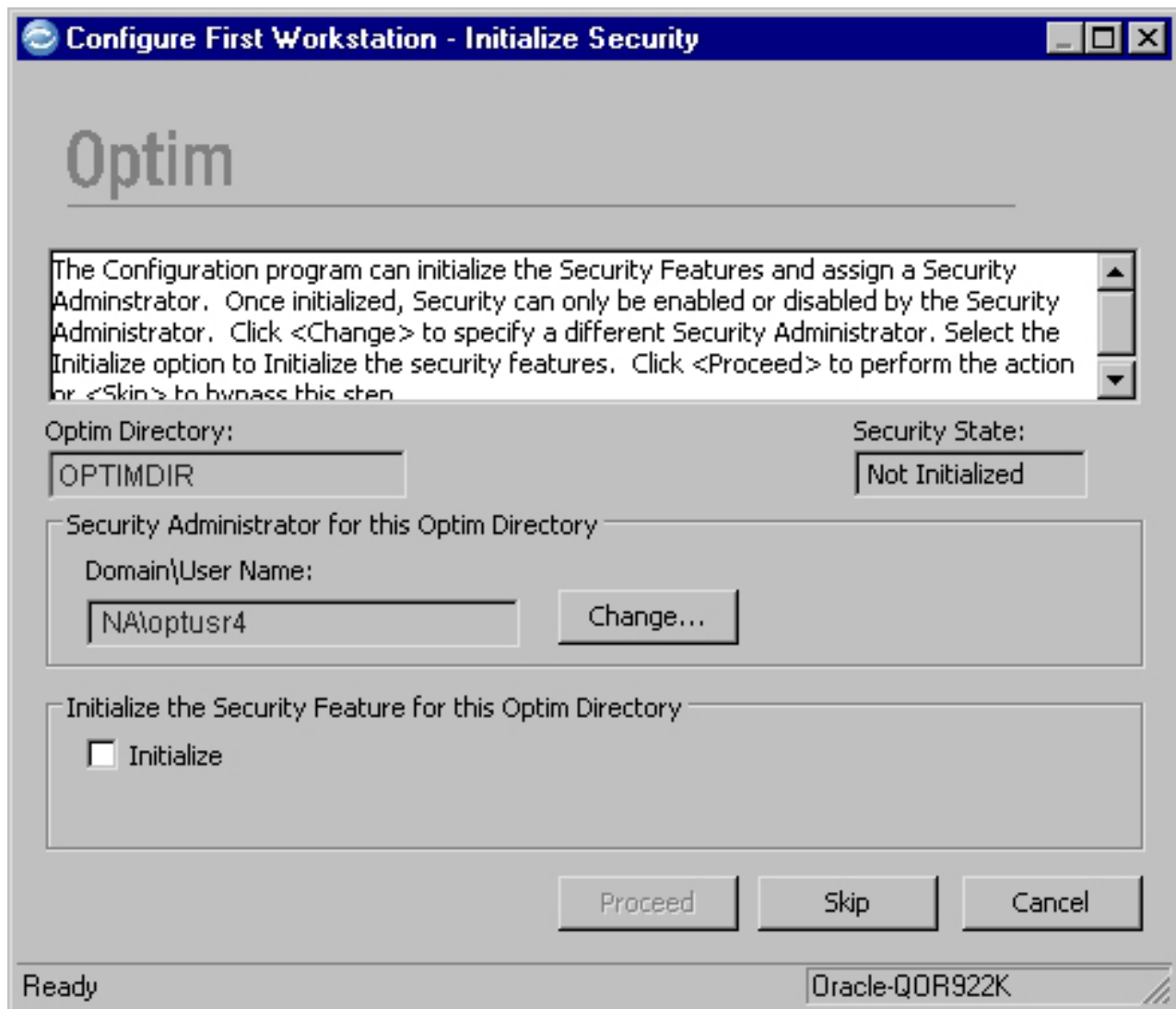
Optim Security includes three features: Archive File Security, Functional Security, and Object Security.

For more information about these security features, see “Archive File Security” on page 384, “Functional Security” on page 383, “Object Security” on page 384.

To use Optim Security, security must be initialized for the Directory.

Initialize Security/Change Security Administrator

Use the Initialize Security dialog to assign a Security Administrator for the Optim Directory and initialize security. If security has been initialized for the Directory, this dialog is replaced by the Change Security Administrator dialog, which is similar to Initialize Security, but with no initialize option.



Optim Directory displays the Directory name, and **Security State** indicates that security is *Not Initialized*.

Security Administrator for this Optim Directory

The Security Administrator is assigned to the Optim Directory when security is initialized. Only one Security Administrator can be assigned to an Optim Directory. The Security Administrator can configure Optim Security as well as control access to the default Access Control Domain (ACD) and Access Control List (ACL) for the Directory. For more information, see “Access Control Domains List” on page 387.

Use Security Administrator for this Optim Directory to identify the Security Administrator by the two-part Domain\User Name. By default, the Security Administrator is the user signed on to the workstation. To specify another user, click **Change** to open the Specify Domain Connection Information dialog, which allows you to enter a different Domain\User Name or select from a list of user accounts in an available domain. The Security Administrator must be a user account in a network domain that is accessible from the current workstation.

Note: You can also change the Security Administrator using the Change Security Administrator dialog, available by selecting **Configure Security for an Optim Directory** from the **Tasks** menu.

Initialize the Security Feature for this Optim Directory

After identifying the Security Administrator, initialize security for the Directory by selecting **Initialize** and clicking **Proceed**. When security is initialized, the Security Administrator is assigned, and a default ACD and ACL are created for the Directory. For more information about ACDs and ACLs, see “Access Control Domains List” on page 387 and “Access Control List” on page 405.

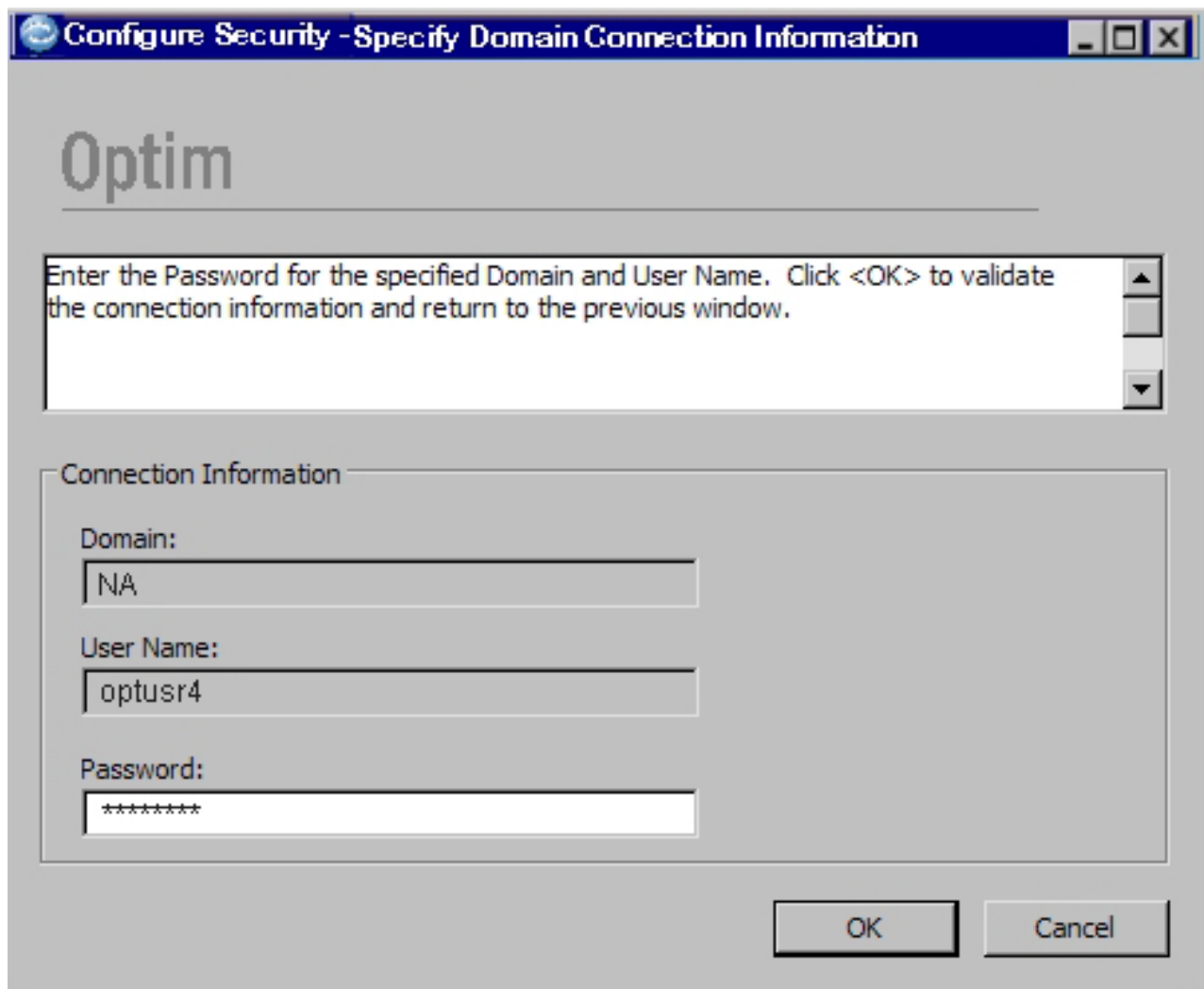
Once security has been initialized for an Optim Directory, it cannot be undone; however, the Security Administrator can enable or disable the Optim Security features for the Directory by selecting the **Configure Security for an Optim Directory** option from the **Tasks** menu in the Configuration main window.

If you do not wish to establish security for the Directory, click **Skip**. To initialize security at a later time, use the **Configure Security for an Optim Directory** option. For more information about enabling, disabling, and configuring the Optim Security features, see “Configure Security for an Optim Directory” on page 173.

Click **Skip** or **Cancel** to exit the security configuration process. Security will not be initialized and the Security Administrator will not be changed.

Specify Domain Connection Information

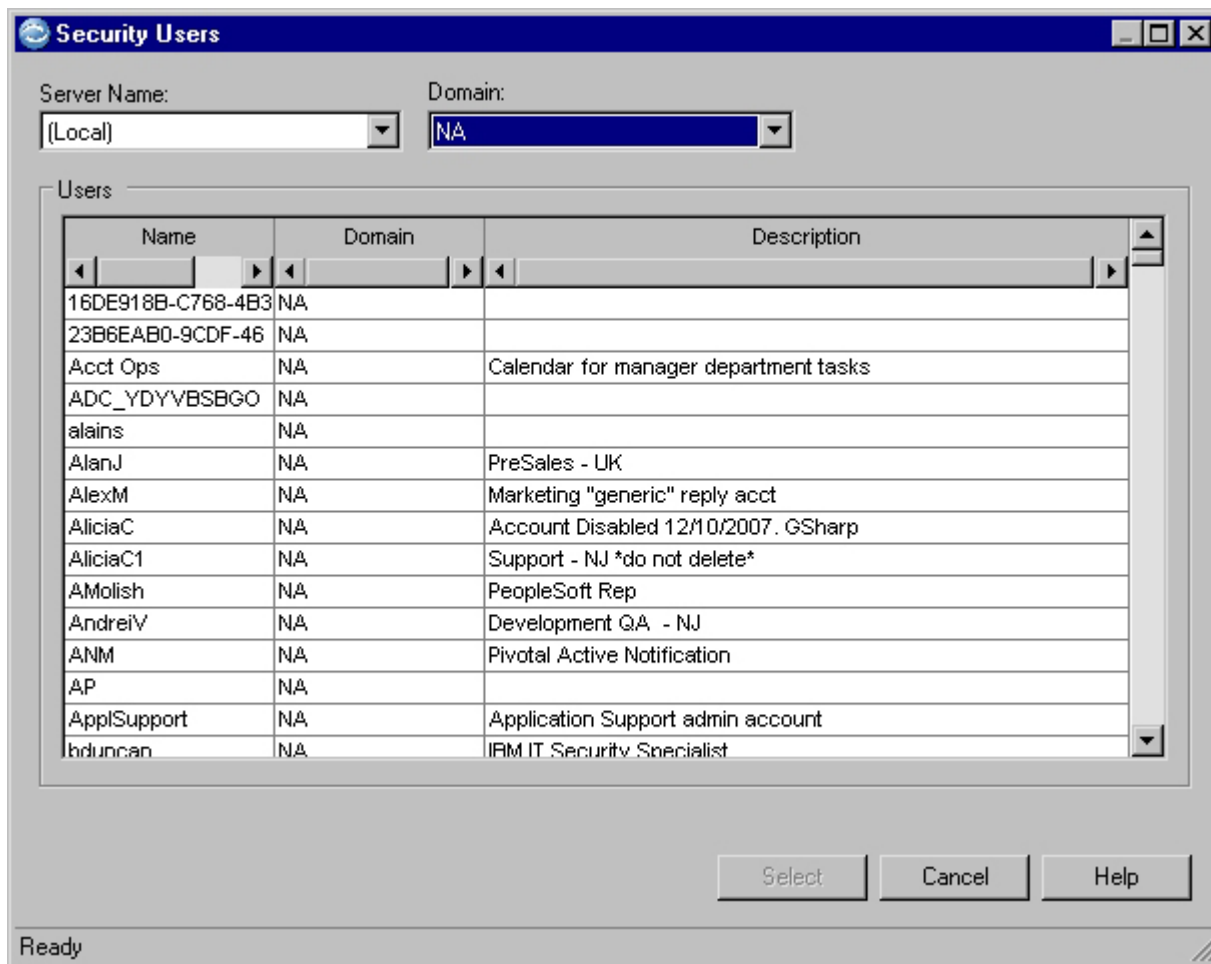
Use the Specify Domain Connection Information dialog to identify the Security Administrator. Enter the Domain, User Name, and Password for the Security Administrator, or click **Browse** to select a user from the Security Users dialog. If you select a user, you must enter the user password when you return to the Specify Domain Connection Information dialog.



Click **OK** to return to the Initialize Security dialog.

Security Users

The Security Users dialog allows you to select a user from an available domain. Select a Server Name and a Domain to list Users in the domain. After selecting a user, click **Select** to return to the Specify Domain Connection Information dialog, which will display the selected Domain and User Name.



Notes:

- If your site does not use a Server, (Local) is displayed in **Server Name**.
- If a UNIX or Linux Server Name is selected, the node name is displayed in **Domain**.

Configure Options

The Configuration program allows you to configure options for the first workstation.

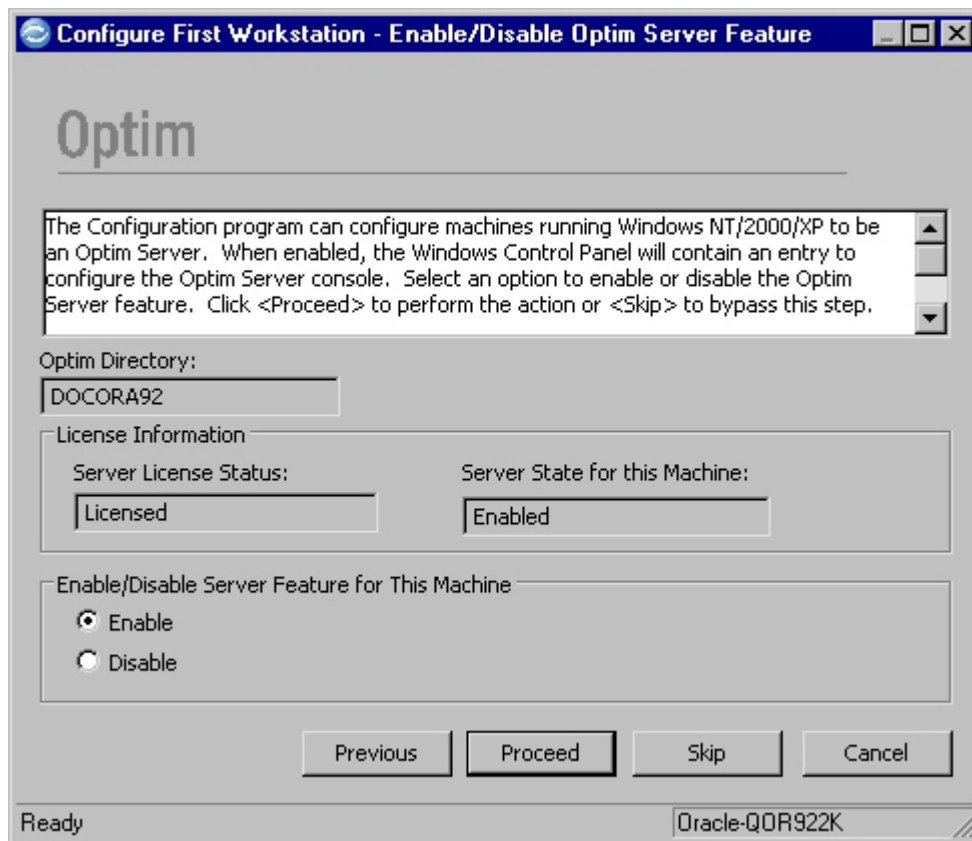
These options include the following:

- Designate a machine as a Server (if this feature is licensed).
- Enable the ODBC interface for the machine (if Archive is licensed).
- Specify a Product Configuration File to record Product Options that, in most cases, apply to all Optim users at a site.
- Personal Options that are stored in the Windows registry on a particular workstation.

Note: Both the Product Configuration File and the registry entries are created during the configuration process.

Enable/Disable Optim Server Feature

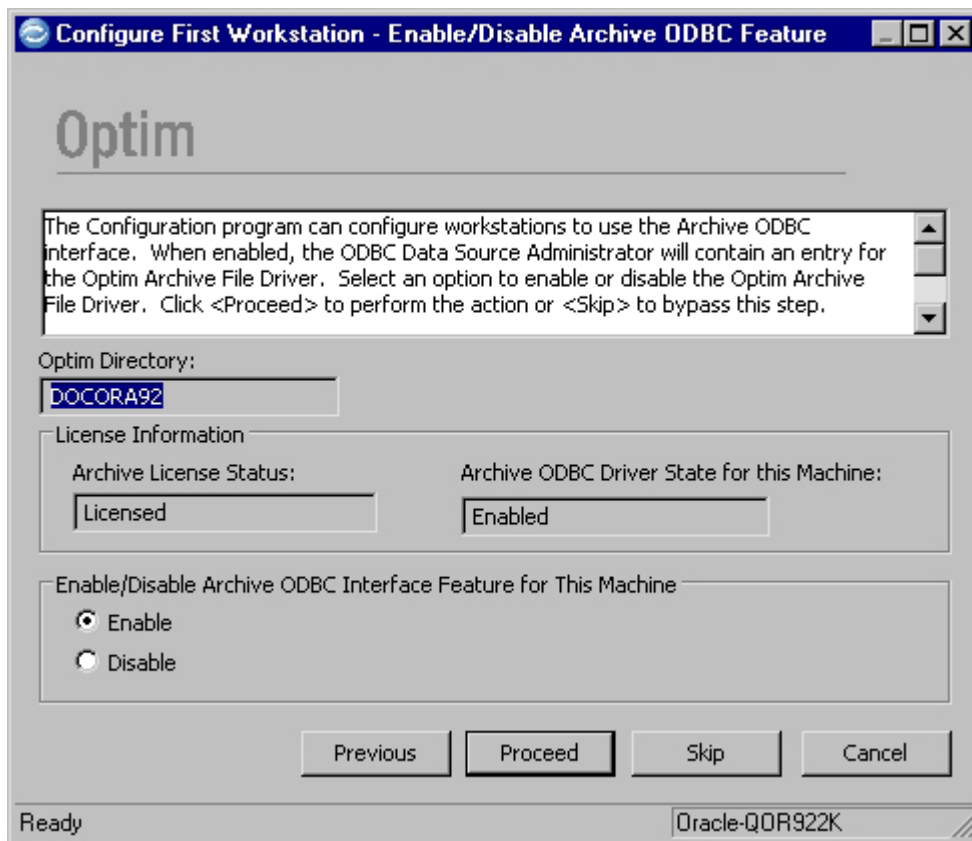
On the Enable/Disable Optim Server Feature dialog, choose to enable or disable the current machine as a Server.



If the site is not licensed for the Server, **Enable** is not available. Refer to Chapter 6, “Configure the Optim Server,” on page 143 for information needed to configure the Server.

Enable/Disable Archive ODBC Feature

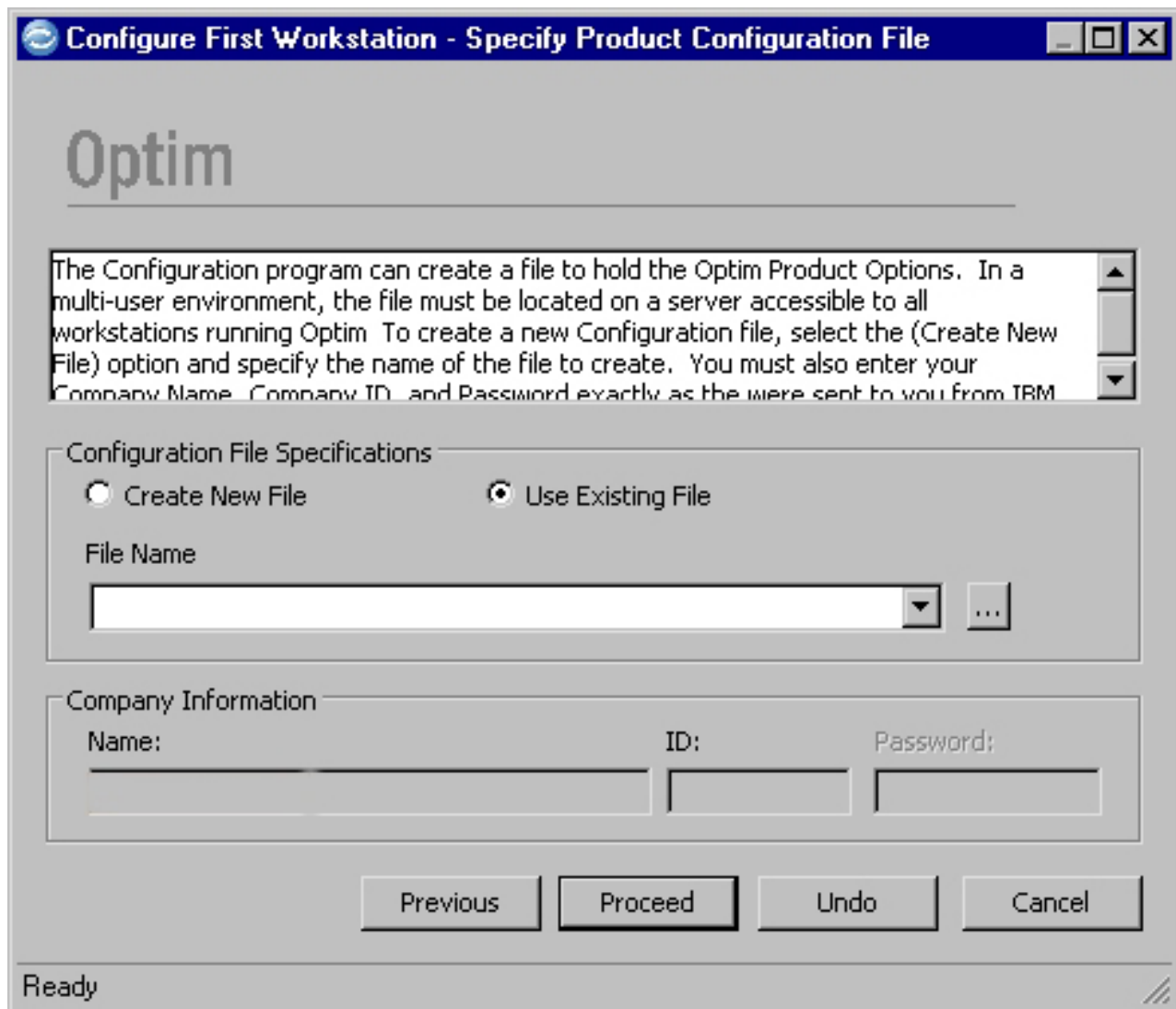
On the Enable/Disable Archive ODBC Feature dialog, choose to enable or disable the ODBC driver for the current machine.



If your site is not licensed for Archive, **Enable** is not available.

Specify Product Configuration File

Use the Specify Product Configuration File dialog to provide the complete directory path and name of the configuration file.



The Specify Product Configuration File dialog includes the following:

Configuration File Specifications

Create New File

Select this option to create a new Product Configuration File.

Use Existing File

Select this option to use an existing Product Configuration File.

File Name

Provide the complete directory path and name of the Product Configuration File. To select a file from your system directories, click the browse button.

Note: The Configuration File is usually shared by all users at a site; specify a path on a file server that is easily accessible to all users.

Company Information

Name Name of the company licensed to use OptiM.

ID Company identifier required for using OptiM.

Password

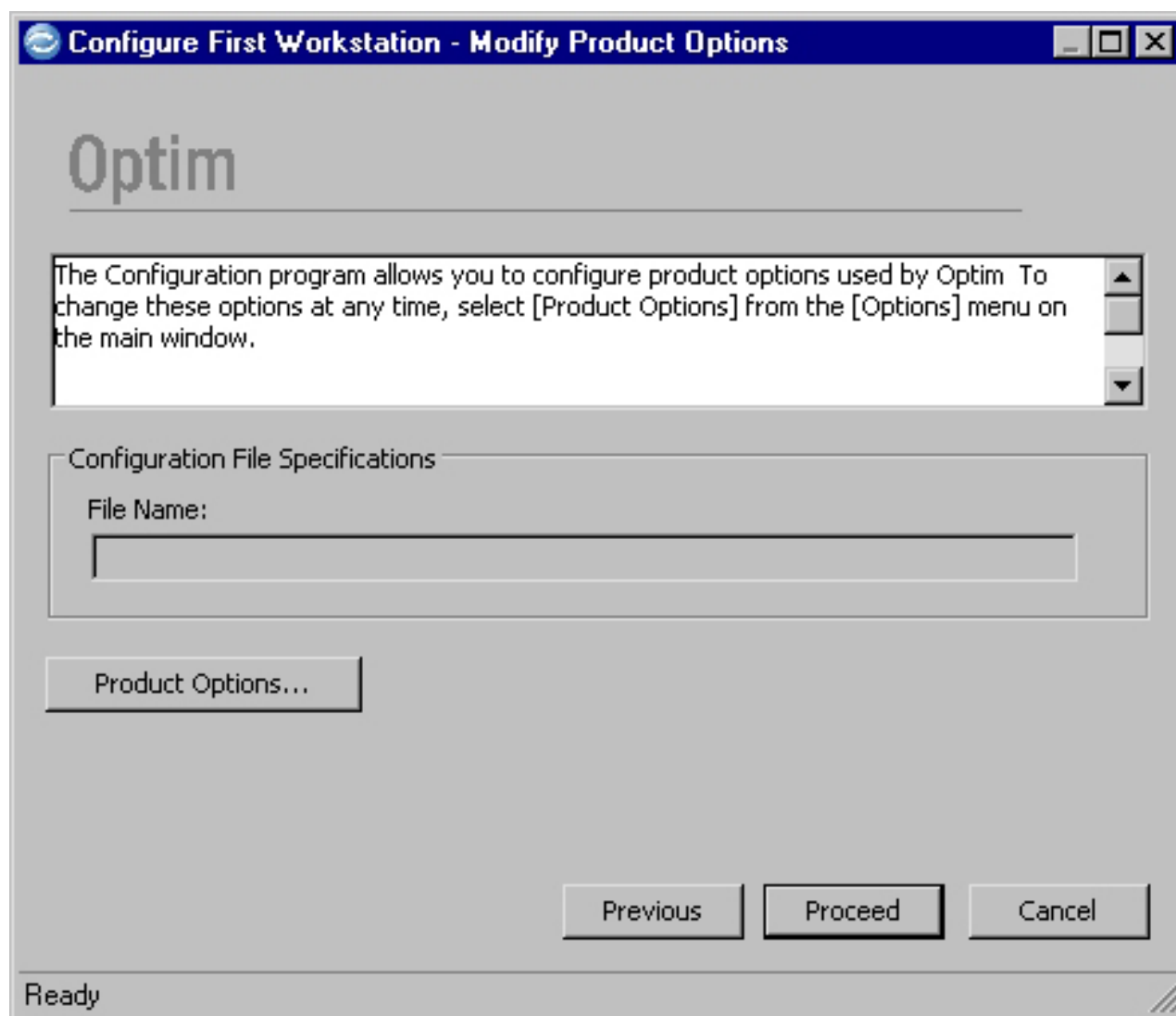
Enter the password required for creating a new Product Configuration File.

Note: The password is provided by email when the product is shipped.

Modify Product Options

Optim is distributed with standard settings for Product Options. The Modify Product Options dialog allows you to customize these settings to accommodate conditions at your site.

If the Optim Directory is in multi-byte format, you will be prompted to use Product Options to indicate how Optim should handle round-trip errors. For more information, see “MBCS Roundtrip Processing” on page 227.



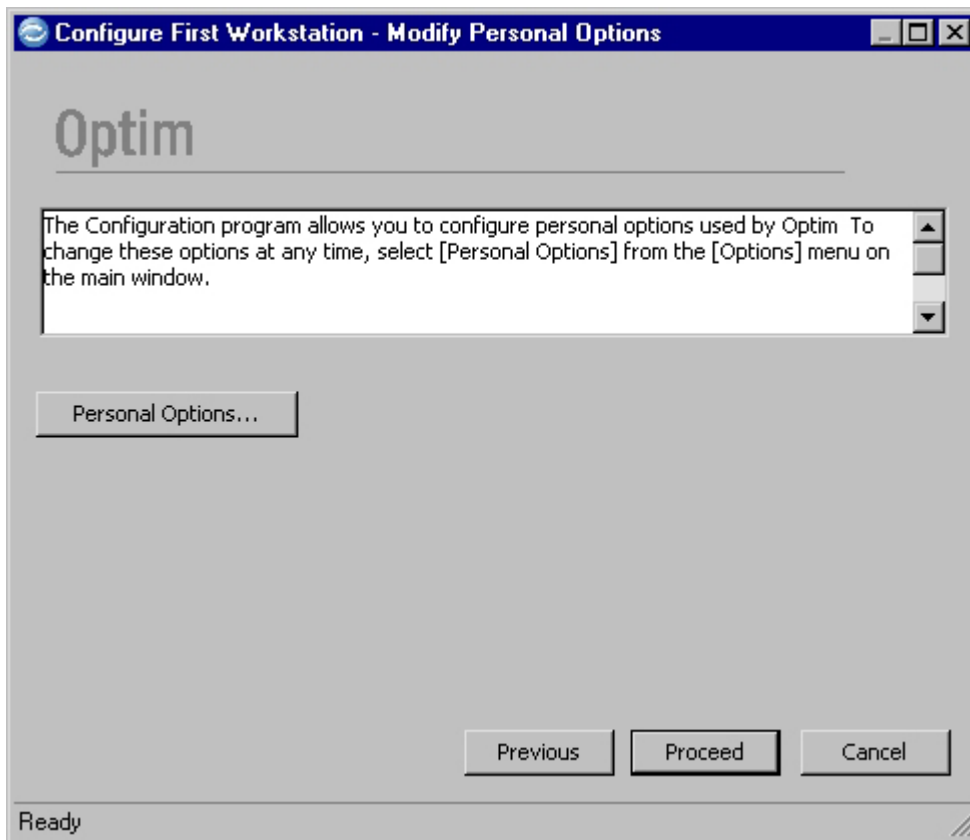
The name of the Product Configuration File specified in the preceding dialog is displayed. If you click **Product Options**, you are prompted for a password to open the Product Options dialog.

Note: You must have a password to review and change Product Options. Optim is distributed with the case-sensitive password *optim*. You can change this password when configuring the first workstation.

For a detailed description of the Product Options dialog, refer to “Using the Editor” on page 220. After you modify Product Options and return to the Modify Product Options dialog, click **Proceed** to open the next dialog in the process.

Modify Personal Options

The Modify Personal Options dialog is similar to the Modify Product Options dialog.

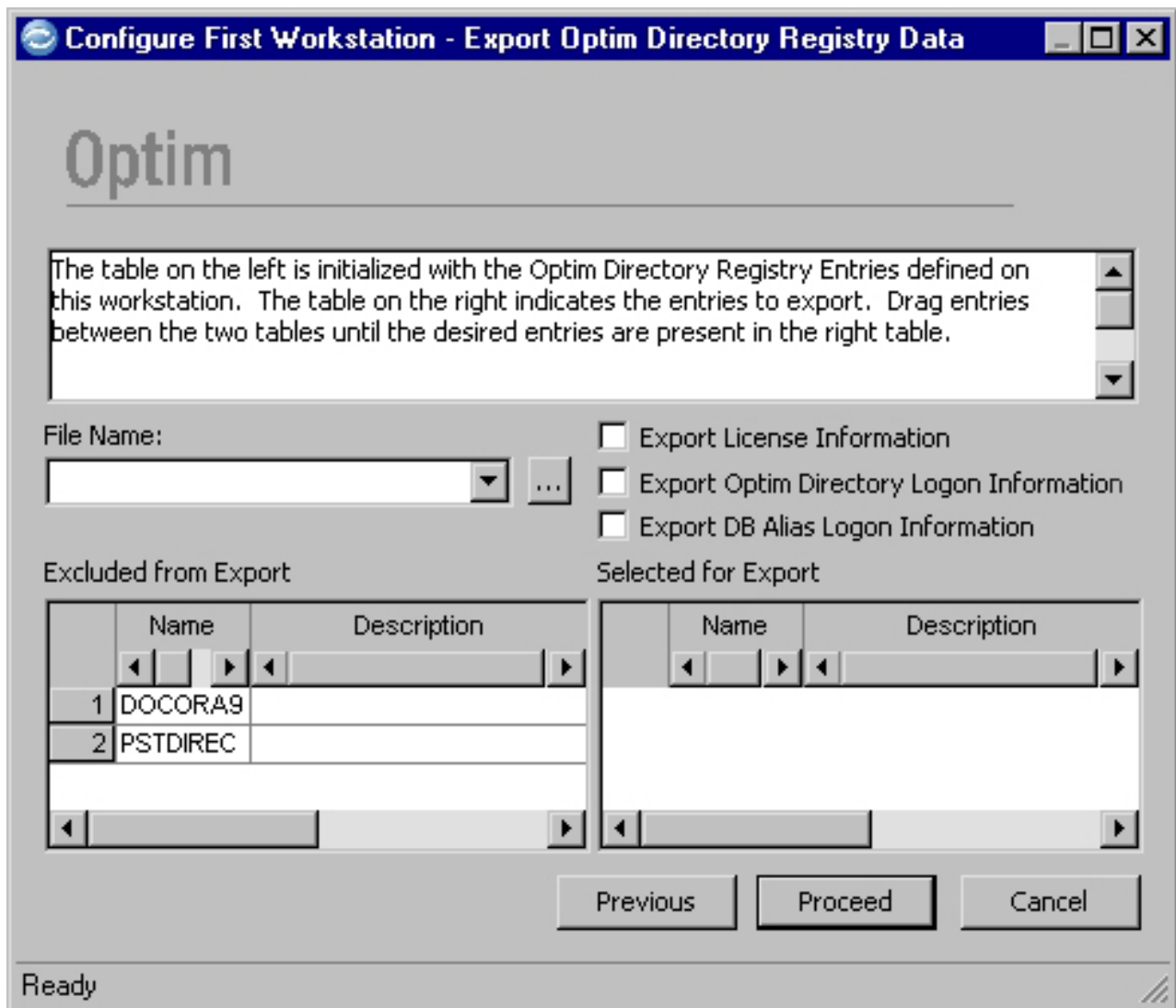


Click **Personal Options** to open the Personal Options dialog. A detailed description of this dialog is provided in “Using the Editor” on page 248. After you modify Personal Options and return to the Modify Personal Options dialog, click **Proceed** to open the next dialog in the process.

Export Registry Data

If you intend to configure several workstations, you can save time by exporting the Optim Directory registry data to a file and saving the file to a directory that is easily accessible. During the process of configuring the first workstation, you are prompted to export registry data, or you can select **Export Registry Data** from the **File** menu on the Configuration main window.

The Export Optim Directory Registry Data dialog allows you to specify an output file name and select the registry entries and other information you want to export.



The Export Optim Directory Registry Data dialog includes the following:

File Name

Enter the name of the file to which you want to export the registry data. The file name uses a default .txt extension. To select from your system directories, click the browse button.

Note: If you do not provide the full directory path and file name, the file is saved to the Data Directory identified in Personal Options.

Export . . .

Select one or all check boxes to export:

- Product License information
- Optim Directory Logon information
- DB Alias Logon information

Excluded from Export

List of Optim Directories not selected for exporting registry data.

Name Name of each available Optim Directory.

Description

Text that describes or explains the purpose of the Optim Directory.

Selected for Export

List of Optim Directories selected for export.

Name Name of each selected Optim Directory.

Description

Text that describes or explains the purpose of the Optim Directory.

Move an item from one list to the other by dragging the name. Also, to rearrange listed items, drag the line number to the new position.

After you make your selections, click **OK** to export the registry data.

Complete

When you finish, the configuration process opens the Complete dialog. This dialog describes the files that may be created during the process.

SQL.TXT

Contains the DDL statements generated to carry out various functions.

BIND.TXT

Contains the DB2 Bind Report.

KEYS.TXT

Contains a list of the Optim Keys created.

PR0CNFG.LOG

Contains the Configuration Processing Log.

These files are located in the Temporary Work Directory, specified using the **General** tab of the Personal Options dialog. You can browse or print these files using a text editor, such as Notepad.

On the Complete dialog, click **Close** to return to the Configuration main window, where you can quit the program or prepare to configure the next workstation.

Configure the First Workstation - Summary

The tasks for configuring the first workstation are complete.

- Create an Optim Directory and corresponding Windows registry entries.
- Create a DB Alias for each database within the Optim Directory.
- Create Optim Primary Keys for database tables that did not have DBMS primary keys but did have a unique index.
- Load sample database tables.
- Create and load the data privacy data tables, if you have an Optim Data Privacy License.
- Initialize Optim Security and assign the Security Administrator.
- Create the Product Configuration File and modify Product and Personal Options.
- Export registry data to ease the task of configuring additional workstations.

Configure Additional Workstation

After you configure the first workstation, you can configure any additional workstations to use Optim. This task uses Optim Directory and DB Aliases created while configuring the first workstation. However, you must create a Windows registry entry on each additional workstation to permit access to the Optim Directory. You may also configure Personal Options for each workstation.

Note: If the configuration at your site requires, you may create a separate Product Configuration File for an individual workstation; however, the typical installation uses one Configuration File that is easily accessible to all users.

Guidelines

When you configure additional workstations, the following guidelines apply.

- Even if you install Optim on a server that allows access to each workstation, you must run Setup before configuring each additional workstation. This step ensures that the Windows registry for the workstation is properly prepared and desktop icons are created.
- If you run Setup for a workstation with the Optim software on a file server, you must identify the server directory in which Optim is installed as the Destination Folder.

You can start the process of configuring additional workstations in the following ways:

- Start the Configuration Assistant immediately after Setup completes. Clear the **Configure the First Workstation** check box and click **Proceed**. On the next dialog, select the **Configure Additional Workstation** check box.
- Select **Configuration Assistant** from the **Help** menu on the Configuration main window. Clear the **Configure the First Workstation** check box and click **Proceed**. On the next dialog, select the **Configure Additional Workstation** check box.
- Select **Configure Additional Workstation** from the **Tasks** menu on the Configuration main window.

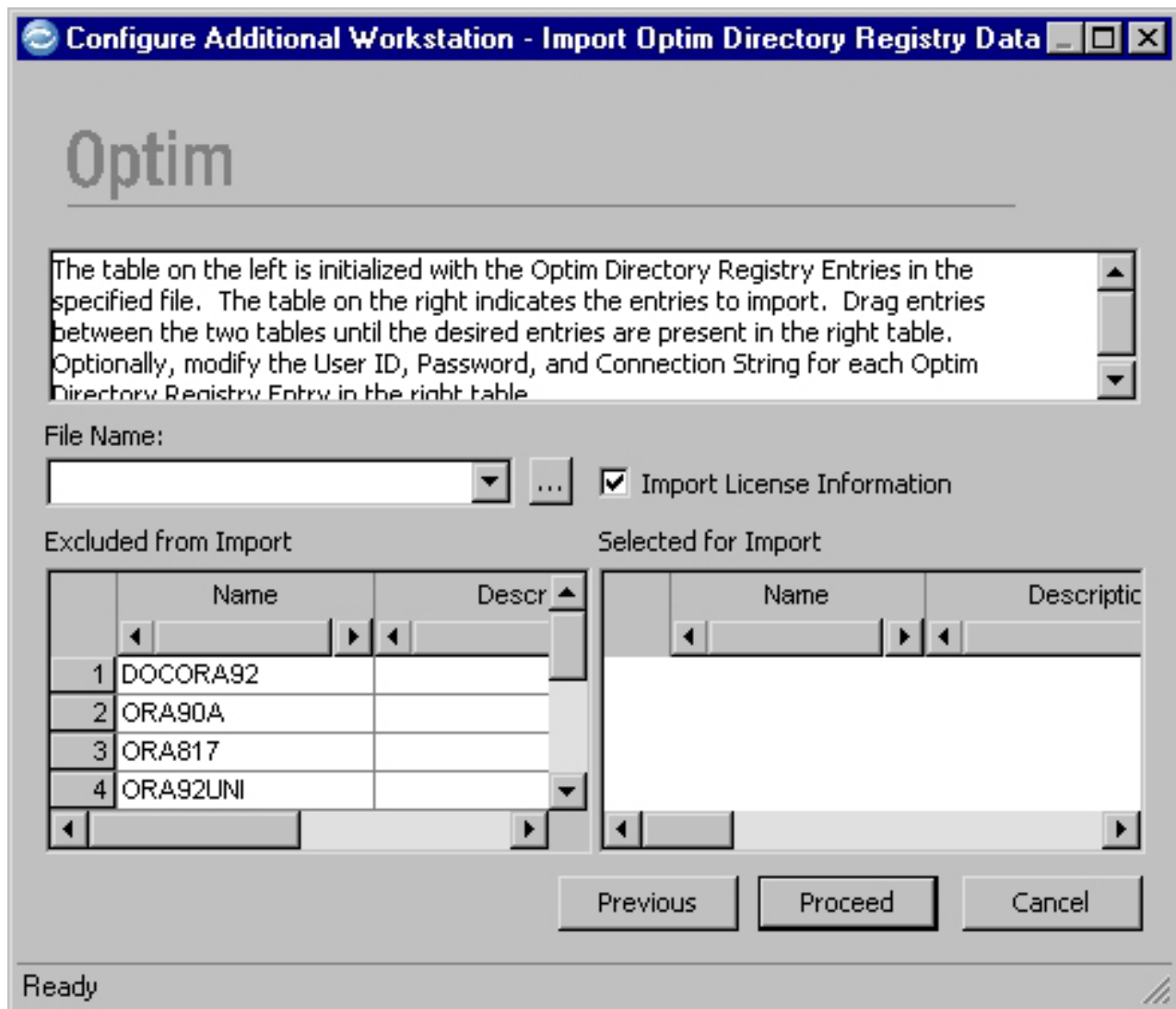
If you exported registry data after configuring the first workstation, you can save time by importing it to additional workstations. You are prompted to import Optim Directory registry data when configuring each additional workstation. If you choose not to import registry data, you must first enter the Product License Key and select the option to Create a new Registry Entry for Existing Optim Directory.

Import Registry Entries

If you intend to configure several workstations, you can save time by importing Optim Directory registry data and the Product License Key from a file.

Note: Before you can import registry data, you must export the data to a file. You can export the data during the process of configuring the first workstation or you can select **Export Registry Data** from the **File** menu on the Configuration main window.

You can import registry data during the process of configuring an additional workstation or you can select **Import Registry Data** from the **File** menu. The Import Optim Directory Registry Data dialog allows you to import registry entries and license information.



The Import Optim Directory Registry Data dialog includes the following:

File Name

Enter the name of the file that contains the Optim Directory registry data you want to import.

Import License Information

Select this check box to import license information, if available in the specified file.

Excluded from Import

List of available Optim Directories not selected for importing registry data. Move an item from one list to the other by dragging the name. Also, to rearrange listed items, drag the line number to the new position.

Name Name of each available Optim Directory.

Description

Text that describes or explains the purpose of the Optim Directory.

Selected for Import

List of Optim Directories selected for import. Move an item from one list to the other by dragging the name. Also, to rearrange listed items, drag the line number to the new position.

Name Name of each selected Optim Directory.

Description

Text that describes or explains the purpose of the Optim Directory.

User ID

Identifier (up to 30 characters) that the DBMS requires to permit access to the Optim Directory. You can modify this entry.

Password

Password (1 to 30 characters) that corresponds to the specified User ID. You can modify this entry.

- The database administrator usually defines User IDs and passwords.
- This password is used only by the DBMS. Sybase ASE and SQL Server passwords are case-sensitive.

Connection String

String (or name) that permits a workstation to access the database. The DBMS uses this connection string to recognize the database. You can modify this entry.

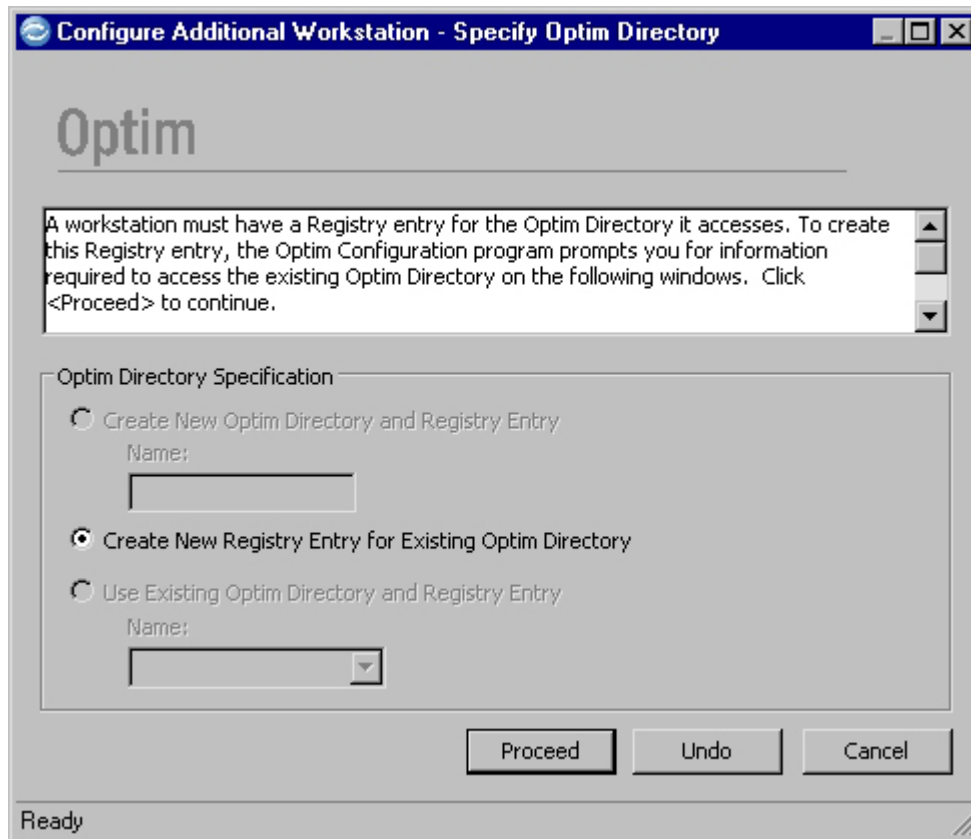
- For some database management systems, it is possible to define a different Connection String for each workstation to access the same database.
- For Sybase ASE and SQL Server, the Connection String refers to the network name of the computer where the database resides.

Create Registry Entry

If you elect not to import Optim Directory registry data, you must create a new registry entry for each workstation to use the Optim Directory. You must identify the Optim Directory and the associated DBMS, and provide information to connect to the database.

Specify Optim Directory

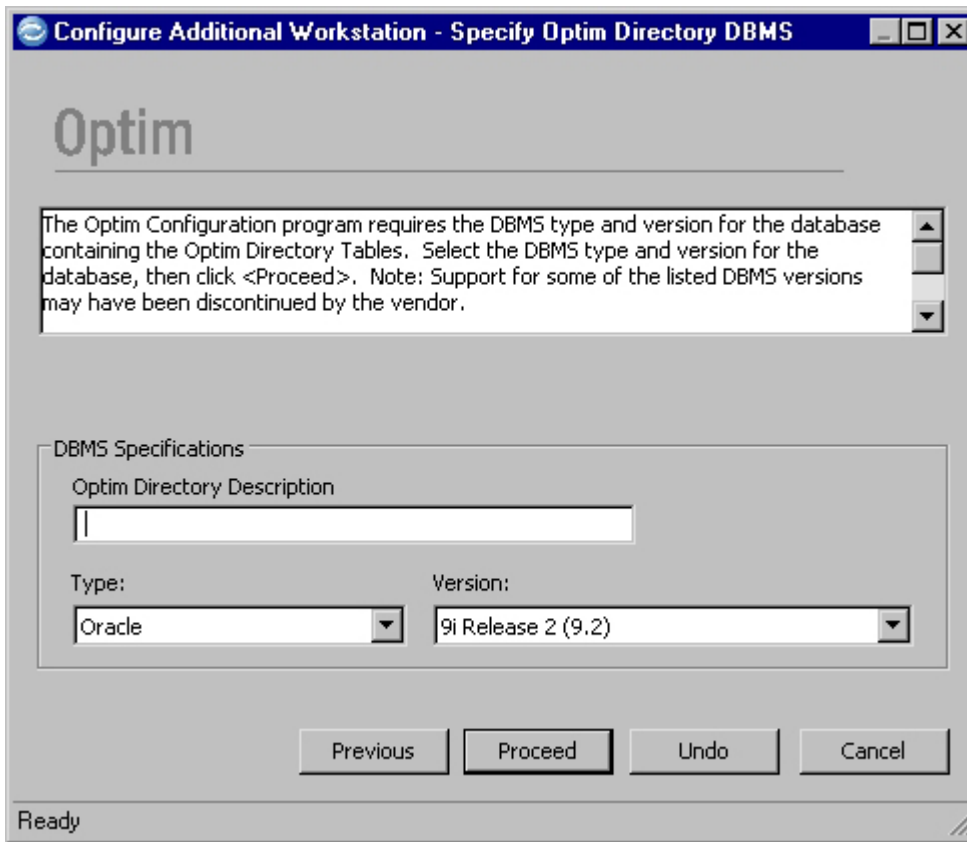
The opening dialog for configuring an additional workstation is the Specify Optim Directory dialog. Use this dialog to create a Windows registry entry.



The only option available when configuring an additional workstation is selected when the dialog opens. To Create New Registry Entry for Existing Optim Directory, click **Proceed**.

Specify Optim Directory DBMS

The next step in creating the Windows registry entry is to Specify Optim Directory DBMS.



The Specify Optim Directory DBMS dialog includes the following details. (When the dialog opens, **Optim Directory Description**, **Type**, and **Version** are populated with any previously entered information.)

DBMS Specifications

Optim Directory Description

Provide text that describes or explains the purpose of the Optim Directory (up to 40 characters). This is useful if you have multiple Optim Directories.

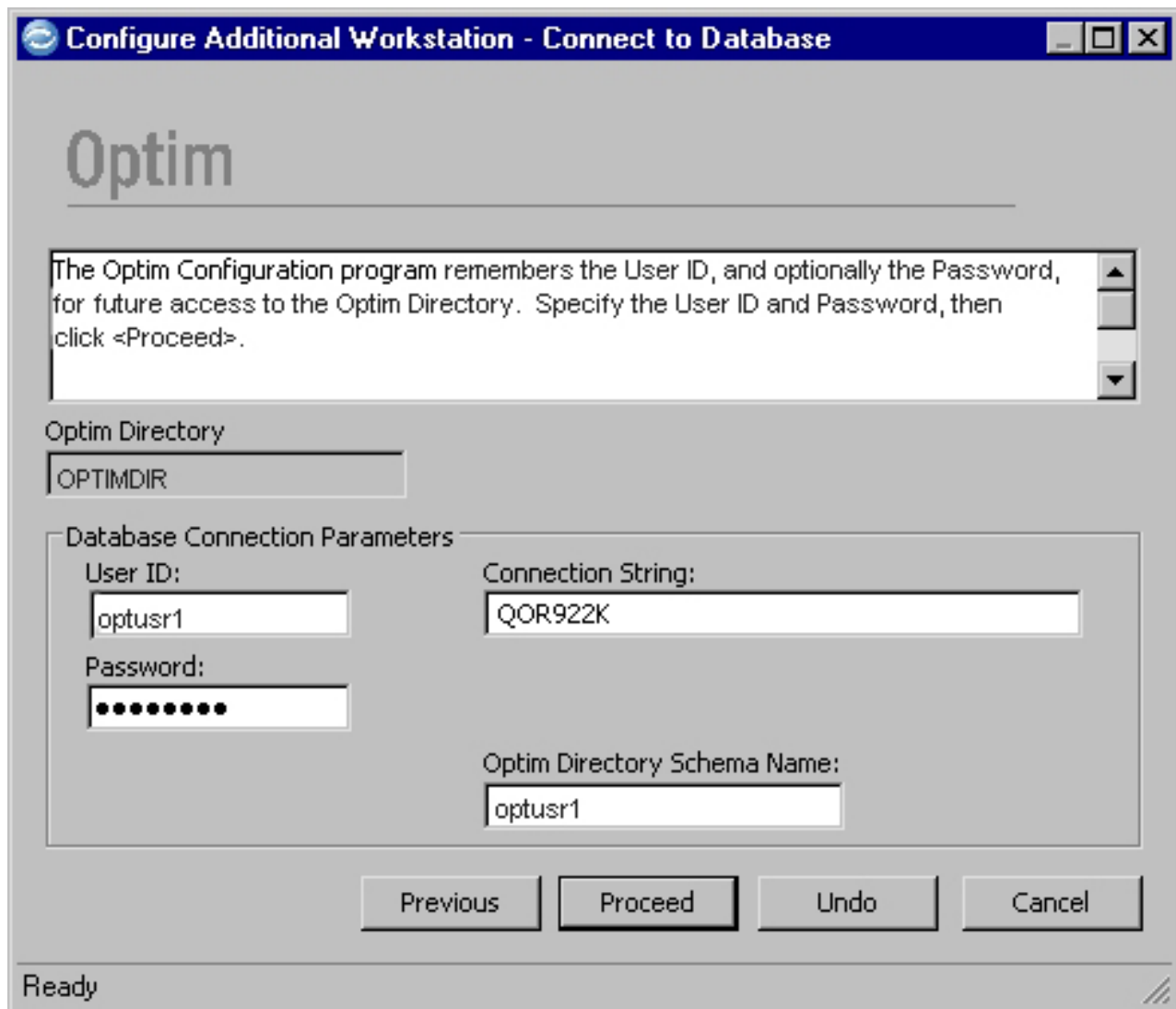
Type Select the type of DBMS software. To select from a list, click the down arrow. The selected DBMS appears on the status bar of subsequent dialogs in the process.

Version

Select the version of the DBMS software. To select from a list, click the down arrow.

Connect to Database

The Connect to Database dialog allows you to provide database connection information for the Optim Directory registry entry.



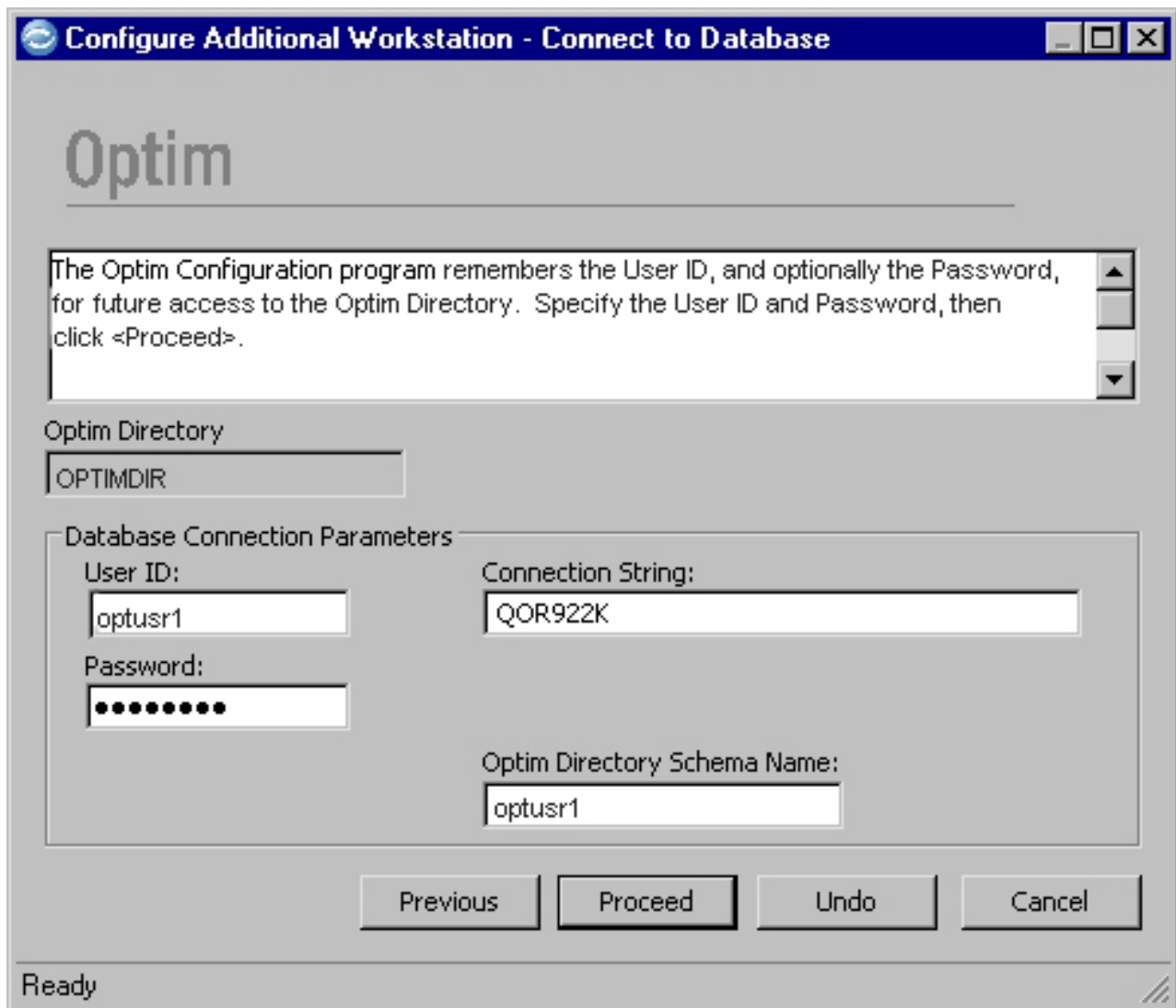
When configuring the workstation, you must provide a User ID, Password, and Connection String that allows the workstation to connect to the database and access Optim Directory tables. If you are using Sybase ASE, SQL Server, or Informix, you must indicate the DB Name. Also, provide the identifier (Creator ID, Schema Name, or Owner ID) for Optim Directory tables.

Note: For some database management systems, the identifier for Optim Directory tables must match the identifier used to create the Optim Directory, including case.

The configuration process locates the Optim Directory and displays a confirmation message. Click **No** to cancel the function and return to the main window or click **Yes** to create a registry entry for the Optim Directory and display a second Connect to Database dialog.

Connect to Database – Subsequent Access

On the next dialog, you are prompted to provide the User ID and Password for subsequent access to the Optim Directory from the workstation.

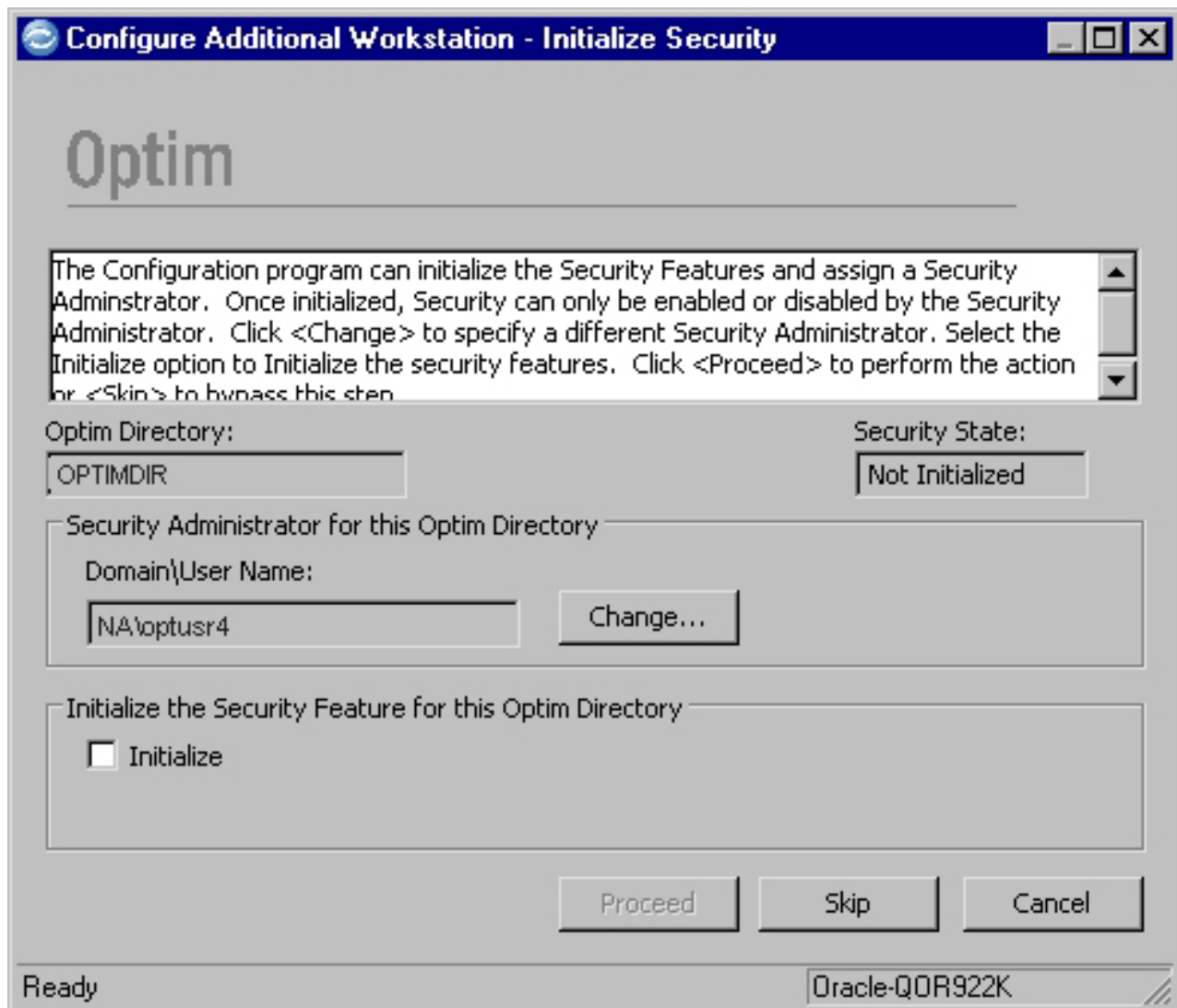


Subsequent steps allow you to initialize Optim Security or assign a Security Administrator, designate the workstation as a Server (if the optional Server feature is licensed), enable the ODBC Interface feature (if Archive is licensed), specify a Product Configuration File, and configure Product and Personal Options. Click **Proceed** to continue.

Initialize Security/Change Security Administrator

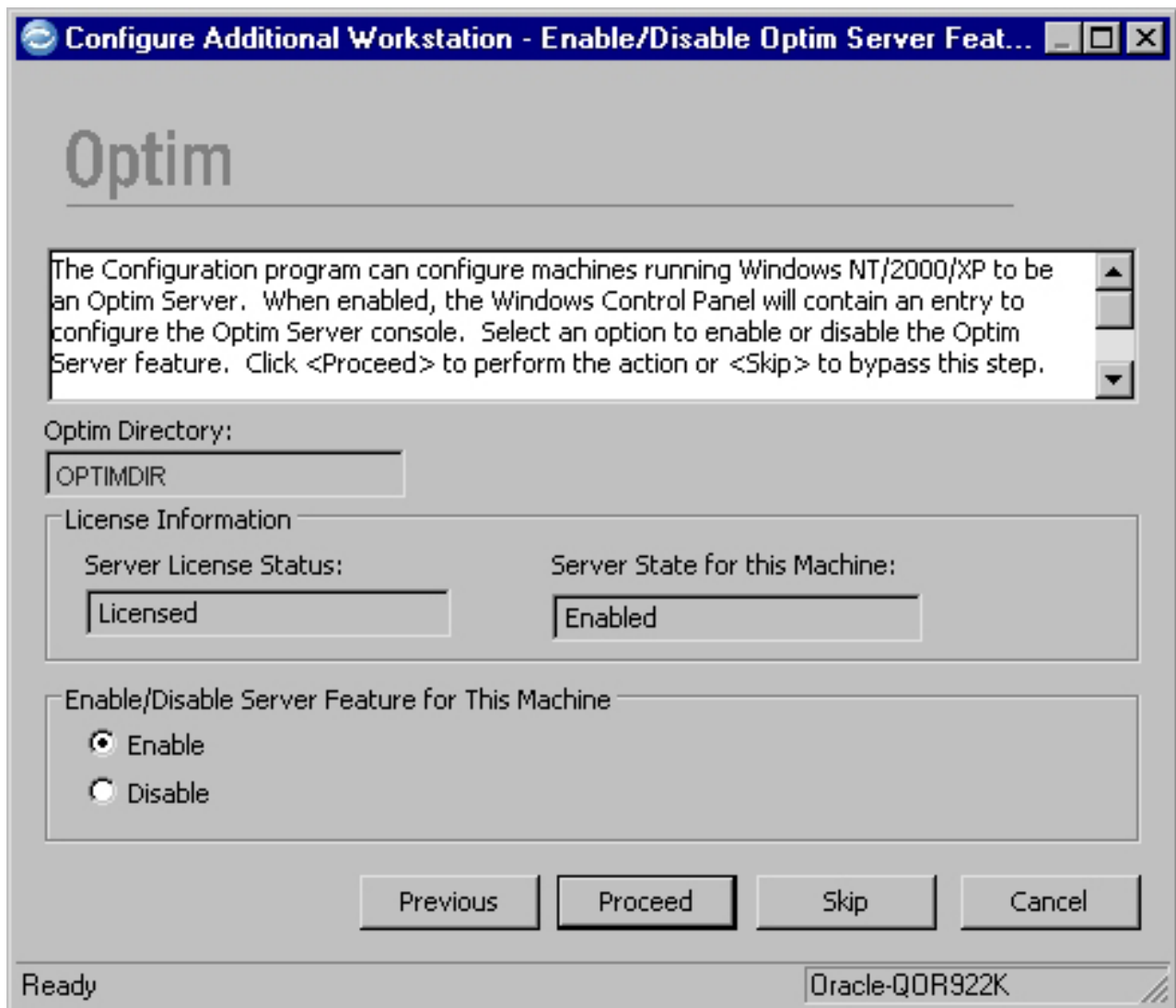
On the Initialize Security dialog, assign a Security Administrator for the Optim Directory and initialize security. If security has been initialized for the Directory, this dialog is replaced by the Change Security Administrator dialog, which is similar to Initialize Security, but with no initialize option.

For information about initializing Optim Security and assigning a Security Administrator, see “Optim Security” on page 120.



Enable/Disable Optim Server Feature

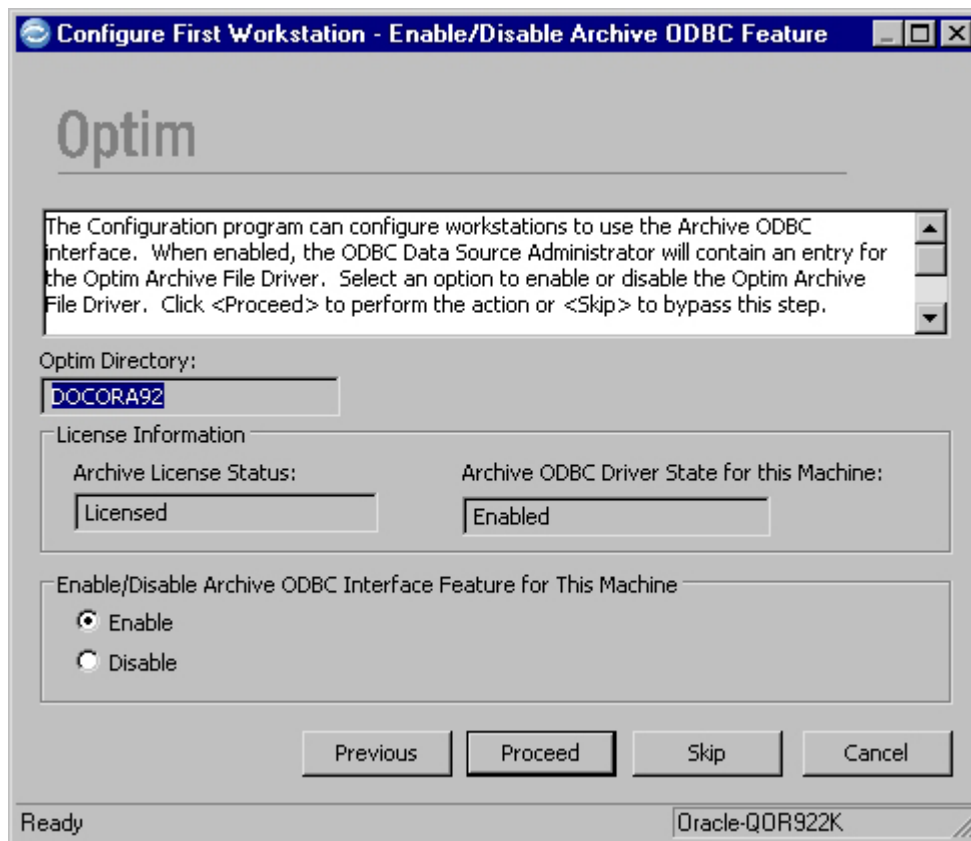
On the Enable/Disable Optim Server Feature dialog, indicate whether to enable or disable the current machine as a Server.



If the Server is not licensed, **Enable** is not available. Refer to Chapter 6, “Configure the Optim Server,” on page 143 for information needed to configure the Server.

Enable/Disable Archive ODBC Interface

On the Enable/Disable Archive ODBC Interface dialog, indicate whether to enable or disable the ODBC driver for the current machine.



If the site is not licensed for Archive, **Enable** is not available.

Specify Product Configuration File

After you create the Windows registry entry for the Optim Directory, you must identify the Product Configuration File for the workstation. The configuration process opens the Specify Product Configuration File dialog.

Note: If you decide to install Optim on a server or on each workstation, all workstations can use one Product Configuration File, located on the server.

You create the Product Configuration File when you configure Product Options for the first workstation. Therefore, when you configure an additional workstation, select **Use Existing File** and specify the fully qualified name of the original Product Configuration File on the Specify Product Configuration File dialog. For more complete information, refer to “Configure Options” on page 124.

Configure Additional Workstation - Summary

The tasks for Configuring an Additional Workstation are complete.

- Import registry data, or create a Windows registry entry for the workstation to access the Optim Directory.
- Identify a Product Configuration File for the workstation.

You must repeat these steps for each workstation you want to use with Optim.

After you configure the first workstation and any additional workstations, you are ready to configure the Server component, if licensed for it, and carry out the other tasks available from the **Tasks** menu. The following chapters describe how to configure the Server and perform other tasks.

Chapter 6. Configure the Optim Server

The Server option allows users to define tasks on a workstation and direct resource-intensive data processing functions to a machine more suited to the task. When a task requires the movement, processing, or storage of very large volumes of data, the request can be defined at the workstation in the normal way, then directed for remote processing on the machine hosting the Server. If this machine is the machine on which the database is running, network traffic associated with the movement of data is eliminated. You can also install the Server on a machine dedicated to the Server function. In addition, a Server is required to process from a database residing in a UNIX environment and to support access to archived data using IBM's Open Data Manager.

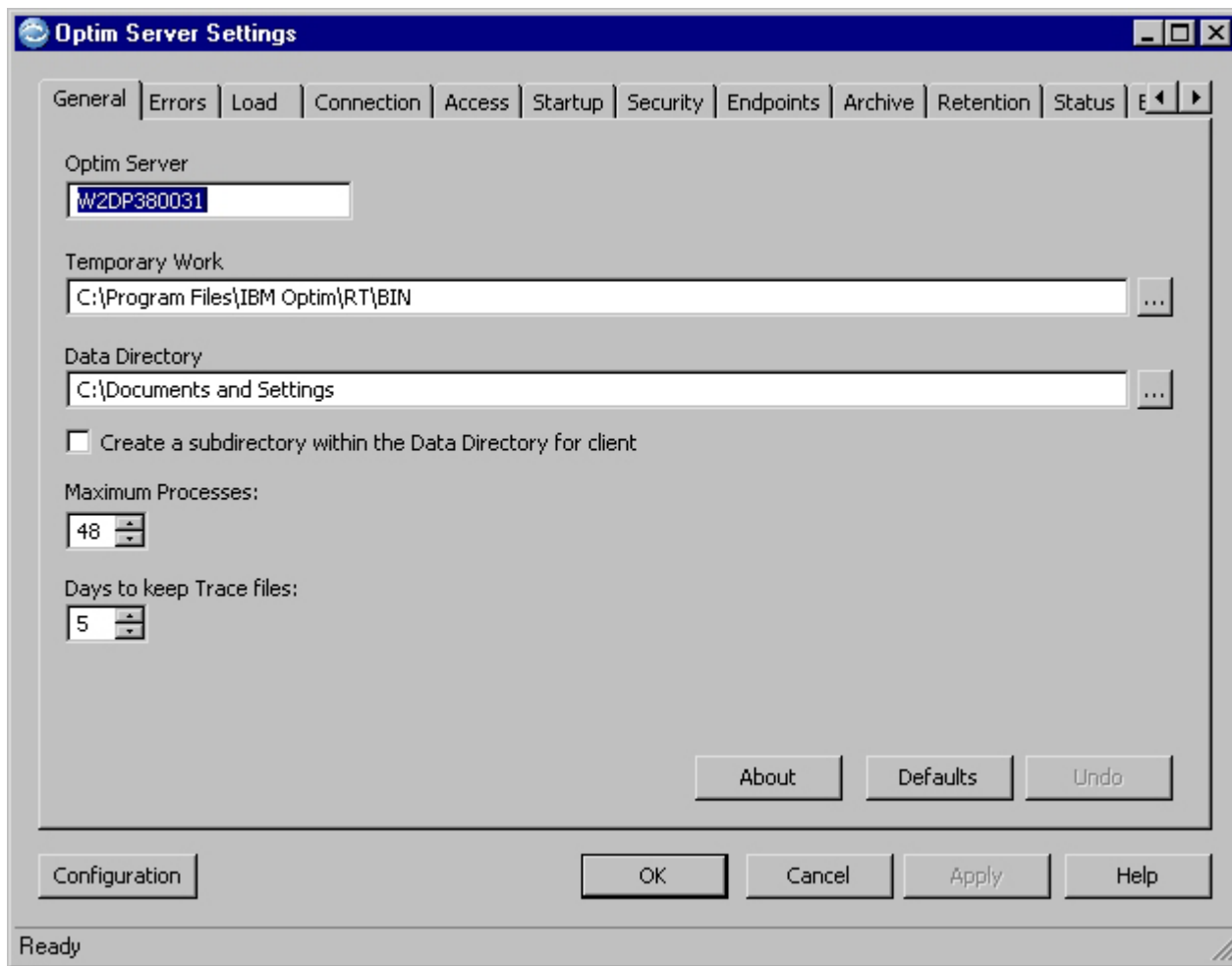
Note: In a UNIX environment, the Server is installed from a console and configured using the Command Line Interface. (See Appendix A, "Install and Configure the Server under UNIX or Linux," on page 293 for complete information.)

To configure the Server option on a Windows workstation, you must first install Optim, and run the Configuration program to configure the workstation and enable it as a Server. (Refer to "Enable/Disable this Machine as an Optim Server" on page 180.)

After you activate the workstation as a Server, you must configure it using the Optim Server Settings applet from the Control Panel.

Control Panel

Double-click the Optim icon in the Windows Control Panel to run the Optim Server Settings applet, which allows you to provide settings unique to the server, such as the path and executable file name for each database loader, connection strings for all DB Aliases, and protocols for access to the server.



Tabs

The tabs on the Optim Server Settings dialog are described in the following paragraphs. Detailed information is provided in the following sections.

General

The default Temporary Work Directory and Data Directory.

Errors Font characteristics for displays of informational, warning, and error messages. Indicate the maximum number of lines displayed in the message bar and whether to hide the message bar when empty.

Load The path and name of the executable required to gain access to each DBMS Loader.

Connection

Connect strings for all DB Aliases in an Optim Directory.

Access

Access to specific Server drives and directories.

Startup

Type of start up for the Server.

Security

The source of User ID and password information to log on.

Endpoints

Protocol and address information for machines hosting the Server.

Archive

Directories for storing Archive files and Archive Index files.

Retention

Options to scan Optim Directories for Archive Files with a retention policy.

Status Current workstation connections to machines hosting the Server.

Email Email addresses for report messages.

As part of the installation process, you create entries in the Current User registry.

Note: When you add or delete an Optim Directory or DB Alias using the Configuration program, you should also apply the new settings to the Server.

Configuration

You can keep Local Machine registry entries for the Server separate from those for the user by entering information in the Optim Server Settings dialog. Settings on the Optim Configuration dialog pertain only to the Server component, not to the currently logged on user.

Note: If workstations are processing, setting changes are saved when you click **Apply**, but are not applied until all processing completes. The Server rejects new connections until the current connections terminate and the new settings are applied. Scheduled processes are similarly rejected when settings are pending. Scheduled processes are retried until the Stop Time entered in the Scheduling Editor.

Credentials

For information about user credentials required to run the Server, refer to Appendix B, “Server Credentials,” on page 369.

General Tab

Use the **General** tab to name the Server and provide paths to required directories.

Optim Server

The name (1 to 15 characters) of the Server. If you do not provide a name, the computer name is the default.

Note: The Server name must be added to the Product Configuration File for your site.

Temporary Work Directory

The complete path to the default directory in which you want the Server to store internal work files and trace files. To select from system directories, click the browse button. This directory must be unique to the Server and different from the Temporary Work Directory specified in Personal Options.

Data Directory

The complete path to the default directory in which you want the Server to store process files for which an explicit directory path is not provided. To select from your system directories, click the browse button. This directory must be unique to the Server and different from the Data Directory specified in Personal Options.

Create a subdirectory within the Data Directory for clients

Select **Create a subdirectory within the Data Directory for clients** to automatically create a subdirectory in the Server data directory, when each workstation first connects to the Server. The new subdirectory becomes the default data directory for the workstation. The name of the new subdirectory is determined by the Windows Logon name from the workstation.

For example, if this option is selected and the data directory is D:\DATA when user "JOHN" connects to the Server, the subdirectory D:\DATA\JOHN becomes the default data directory for JOHN.

Maximum Processes

Use **Maximum Processes** to limit the number of simultaneous processes that can run on the Server. Specify the limit according to the capacity of the Server machine (CPU, disk space, network access speed, memory, etc.). Valid values are from 10 to 48. The default value is 48. When the server reaches the maximum, an error message (Server too Busy) is displayed.

Typically, one validation process, called a Mirror, is created each time a Request Editor that requires the Server is opened. When the request is run, a Mirror and the request process simultaneously. Therefore, two processes run for each request. (For example, if a workstation delegates two requests to the Server simultaneously, four processes are used.)

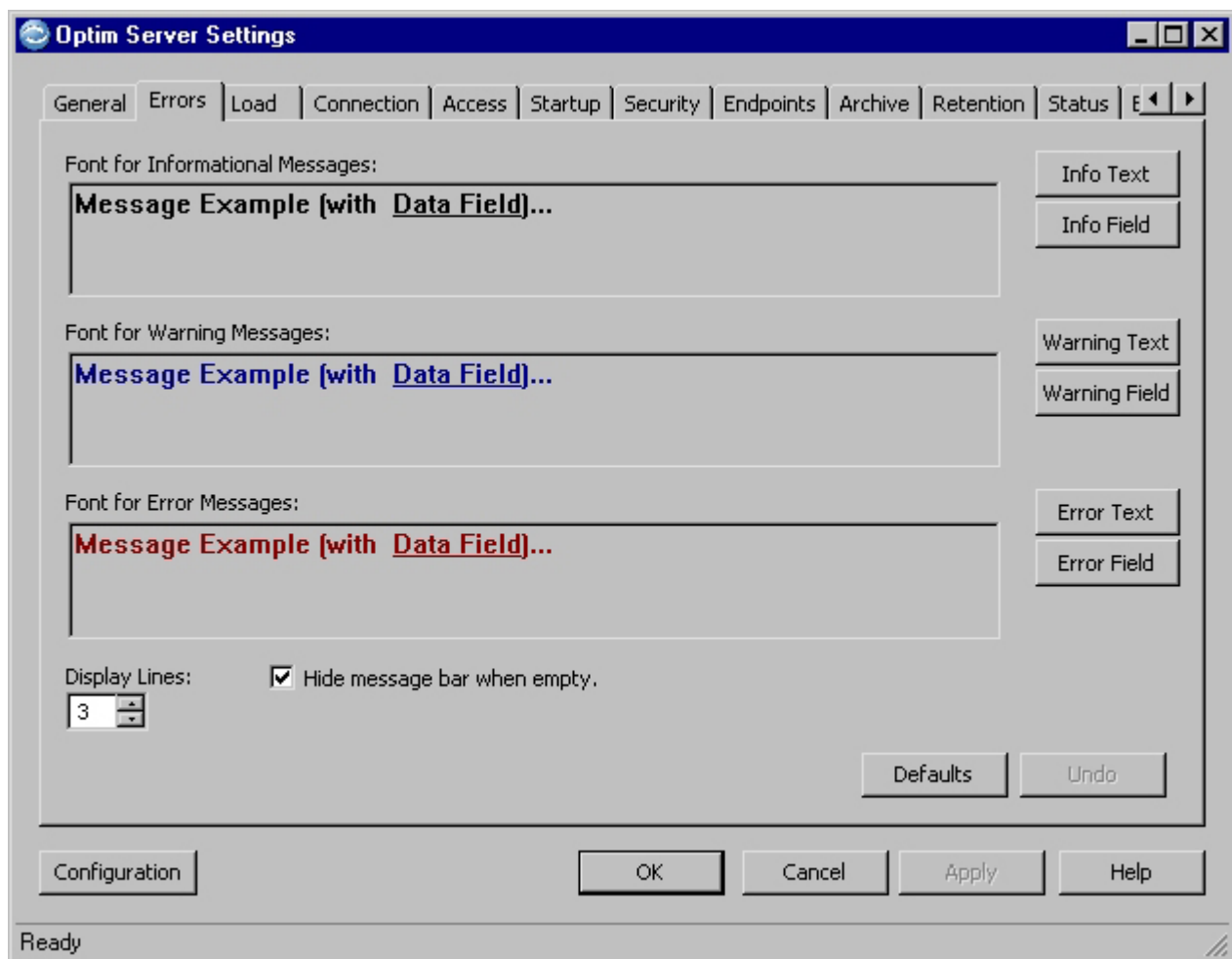
Days to keep Trace files

The number of days (2 to 30) to retain trace files in the temporary work directory. The default value is 5.

Trace files are useful for tracking the processing performed using Optim. Trace file names are prefixed with PR0, followed by letters indicating the trace file type, ended with a numeric extension (for example, PR0TOOL.123). The extension on the name of the trace file distinguishes one trace file of that type from another. Trace files are sequentially numbered .001 through .999, followed by .A00 through .Z99, as necessary. If more than 3,599 trace files of a single type are created and stored within the specified number of days, file names are reused, beginning with the first.

Errors Tab

Use the **Errors** tab to assign default font information for messages.



The default fonts for message text and data fields are shown in each of the font message boxes. To open the Windows Font dialog to select font attributes, click the command buttons for text or fields. To modify the font for text messages, click **Text**. To modify the font for data fields noted in message text, click **Field**.

Font for Informational Messages

Informational messages are not critical; for example, messages that ask whether information should be saved when a dialog is closed.

Info Text

Specify font characteristics for the informational message text. The default is System, 10 point, Bold, Black.

Info Field

Specify font characteristics for the data referenced in an informational message. The default is System, 10 point, Bold, Underline, Black.

Font for Warning Messages

Warning messages indicate serious, but not critical conditions. A warning message does not interrupt an action, but may indicate that you should reevaluate the current action.

Warning Text

Specify font characteristics for the warning message text. The default is System, 10 point, Bold, Navy.

Warning Field

Specify font characteristics for the data referenced in a warning message. The default is System, 10 point, Bold, Underline, Navy.

Font for Error Messages

Error messages indicate critical conditions and interrupt the current action. A problem presented in an error message must be addressed before the attempted action can proceed. Error messages can appear in pop-up dialogs, but usually display in the message bar at the bottom of a dialog.

Error Text

Specify font characteristics for the error message text. The default is System, 10 point, Bold, Maroon.

Error Field

Specify font characteristics for the data referenced in an error message. The default is System, 10 point, Bold, Underline, Maroon.

Display Lines

Specify the maximum number of lines (3 to 9) to display in the message bar for any type of message.

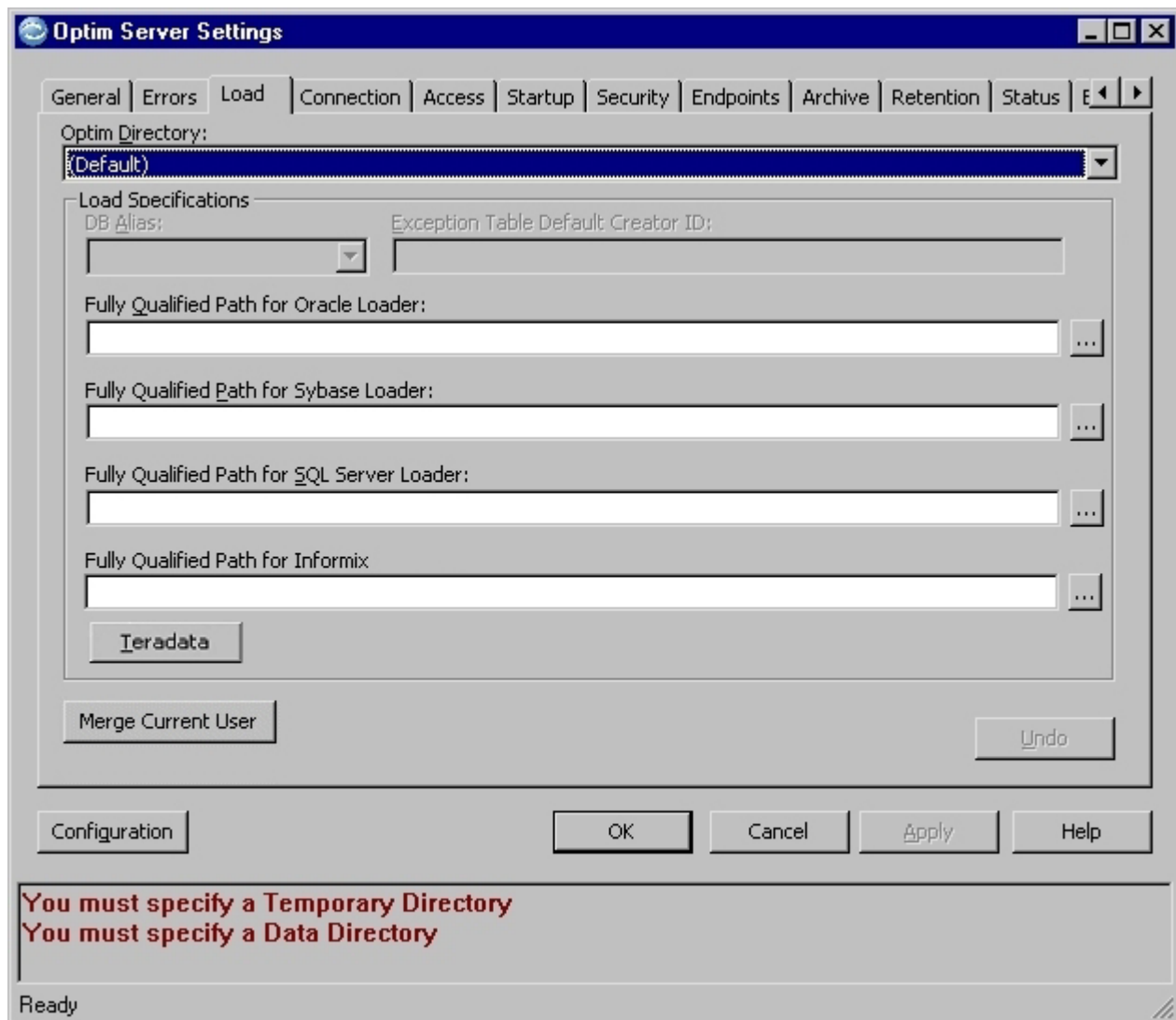
Hide message bar when empty

Select this check box to hide the message bar when no informational, warning, or error messages are displayed. If you clear this check box, the message bar appears at the bottom of each editor or dialog even when empty.

Load Tab

Use the **Load** tab to specify the paths to DBMS loaders.

Note: You can expedite the configuration of the Load settings for the Server by clicking **Merge Current User**. This merges Load settings for the logged-on user in the Current User registry with settings for the Server machine in the Local Machine registry.



Optim Directory

Select [Default] in the **Optim Directory** list to enter the path and name of the Loader executable file for each DBMS type.

If you have more than one version of a particular DBMS type, you can enter the unique loader specification for each version. Select the specific Optim Directory and DB Alias, then enter the appropriate path and name of the Loader executable file for the particular DBMS version.

Load Specifications

Specify the complete path and name of the executable to access each DBMS Loader that can be used with a Load Request.

DB Alias

Select a specific Optim Directory, then click the down arrow to select a specific DB Alias. Specify the appropriate loader path for the corresponding DBMS version.

If you are using DB2, Oracle, or Informix, you can also specify a default Creator ID for Exception Tables (or Violation Tables).

Exception Table Default Creator ID

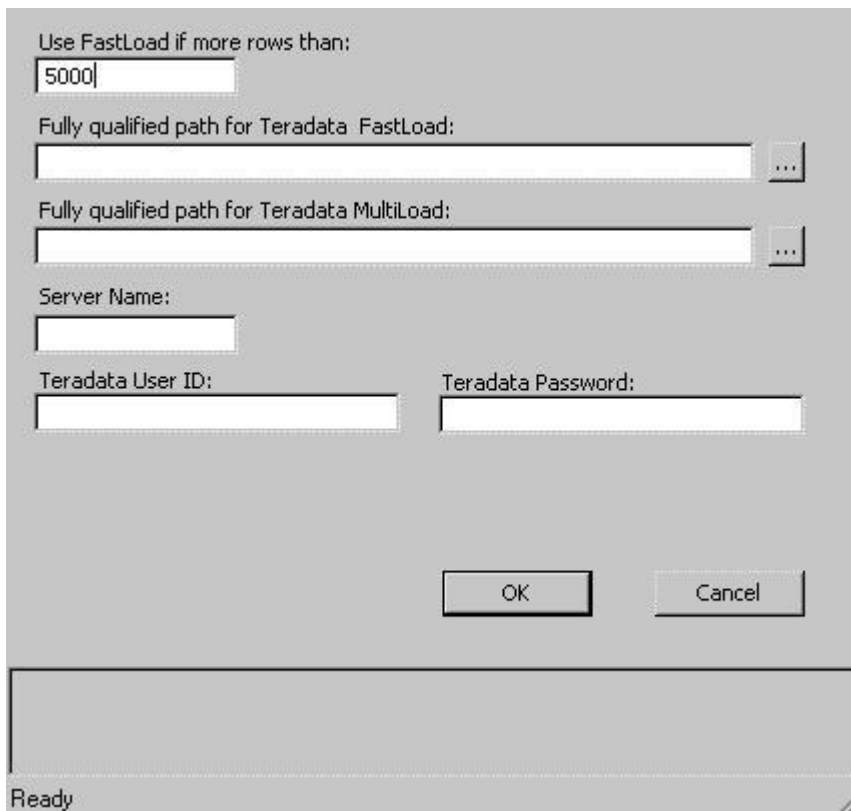
Specify a default Creator ID for exception tables (DB2 and Oracle) or violation tables (Informix). (Available only when you select a DB Alias for a DB2, Oracle, or Informix database.)

Fully Qualified Path for DBMS Loaders

Specify the directory path and program name for the specific DBMS Loader. Consult your DBMS documentation for the name of the loader program. To select from your system directories, click the browse button.

Teradata

Select to provide settings for the Teradata loader. The Teradata Settings panel displays:



Use FastLoad if more rows than:

Row count to determine whether FastLoad or MultiLoad is used. Allowable values are 0 to 999,999,999. If you specify 0 or do not specify a value, MultiLoad is used. For any other value, FastLoad is used if the row count of the load file is greater than the value you specify for **Use FastLoad if more rows than:**

Fully Qualified Path for Teradata FastLoad

Provide the directory path and program name for the Teradata FastLoad. Consult your Teradata documentation for the name of the loader program. To select from your system directories, click the browse button.

Fully Qualified Path for Teradata MultiLoad

Provide the directory path and program name for the Teradata MultiLoad. Consult your Teradata documentation for the name of the loader program. To select from your system directories, click the browse button.

Server Name

Name of the Teradata server.

Teradata User ID

Teradata User ID for the user creating the Load Request.

Teradata Password

Teradata password for the user creating the Load Request.

Merge Current User

Click **Merge Current User** to merge the settings from the Current User registry to the Local Machine registry for the Server machine.

Connection Tab

Use the Connection tab to provide DBMS connection information for all DB Aliases in any Optim Directory required to perform delegated tasks.

Note: You can expedite the configuration of the Connection settings for the Server by clicking **Merge Current User**. This merges the Connection settings for the logged-on user in the Current User registry with settings for the Server machine in the Local Machine registry.

The screenshot shows the 'Optim Server Settings' dialog box with the 'Connection' tab selected. The 'Optim Directory' dropdown is set to 'PSTDIRECTORY'. Below it is a table with columns: DB Alias, User Id, Password, Verify, Connection String, Always Fail Connection, and Des. The table contains four rows: 1. <Directory>, optusr6, password, Verify, qor922k, Always Fail Connection (checkbox), Des. 2. ALIAS1, empty, empty, empty, empty, Always Fail Connection (checkbox), Des. 3. ALIAS2, empty, empty, empty, empty, Always Fail Connection (checkbox), Des. 4. ALIAS3, empty, empty, empty, empty, Always Fail Connection (checkbox), Des. At the bottom of the dialog are buttons for 'Merge Current User', 'Undo', 'Configuration', 'OK', 'Cancel', 'Apply', and 'Help'.

	DB Alias	User Id	Password	Verify	Connection String	Always Fail Connection	Des
1	<Directory>	optusr6	password	Verify	qor922k	<input type="checkbox"/>	
2	ALIAS1					<input type="checkbox"/>	
3	ALIAS2					<input type="checkbox"/>	
4	ALIAS3					<input type="checkbox"/>	

Settings on the **Connection** tab and the **Security** tab are related. On the **Security** tab, you choose **Server** or **Client** to specify the source of the User ID and Password information for Optim Directory and DB Alias access.

- If you select **Server** on the **Security** tab, the appropriate User ID and password entered on the **Connection** tab are used; the User ID and password from the workstation originating the task are not used.

- If you select **Client** on the **Security** tab, the User ID and password from the workstation originating the task are used.

Note: The Connection String information you enter on the **Connection** tab is used regardless of whether you select **Server** or **Client** on the **Security** tab. Leave the connection string blank, or select the **Always Fail Connection** check box to prevent the Server from accessing an Optim Directory and/or DB Alias when performing delegated tasks.

Optim Directory

Select an Optim Directory from the list to display the connection information for the corresponding DB Aliases.

Grid Details

The connection information for the selected Optim Directory includes the following.

Note: The maximum length for a User ID or password varies by DBMS.

DB Alias

DB Aliases in the selected Optim Directory.

User ID

Identifier (1 to 30 characters) that allows the Server to use a particular DB Alias. User IDs are usually assigned and maintained by the database administrator.

Note: If you are using Informix, you must enter the User ID in upper case for an ANSI database and in lower case for a non-ANSI database.

Password

Enter a password (1 to 30 characters) that allows the Server to access a database using the specified DB Alias.

Verify Reenter the password for verification.

Connection String

Connection string the Server uses to access a database using the specified DB Alias.

Always Fail Connection

Select this check box to deny access to the corresponding DB Alias. You can use this check box to temporarily deny access to a DB Alias without having to remove the connection string.

Description

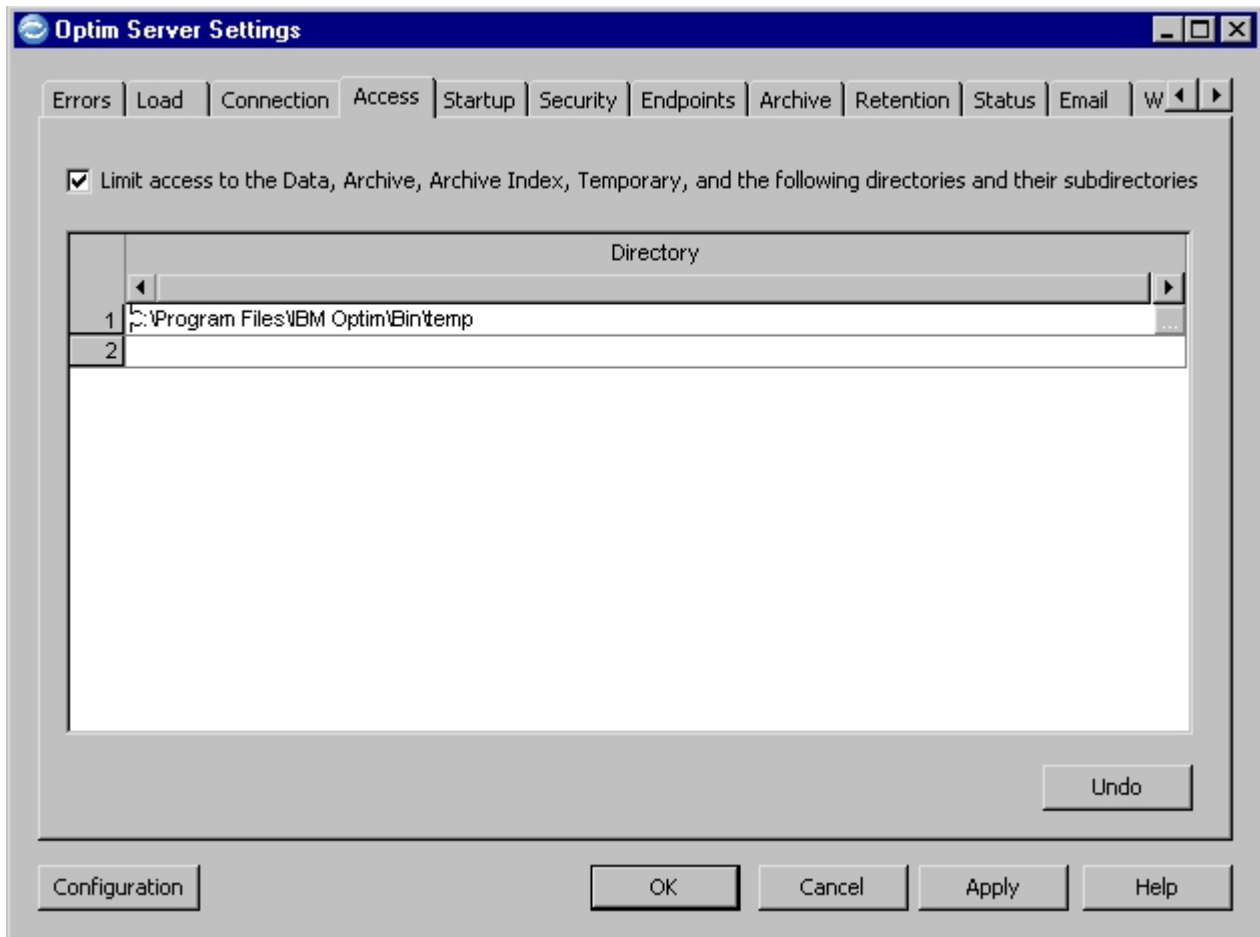
Text that describes or explains the purpose of the logon record.

Merge Current User

Click **Merge Current User** to merge the Connection settings from the Current User registry to the Local Machine registry for the Server component machine. This action does not overlay information previously entered into the Optim Server Settings dialog. This action only merges new settings from the Current User. If the settings are the same, this command is unavailable.

Access Tab

Use the **Access** tab to restrict access to all Server directories and subdirectories, except those you specify. Access to the Server data directory, Archive Directory, and Archive Index Directory is enabled, by default.



Limit Access...

The **Limit access to only the Data, Archive, Archive Index and the following directories and their subdirectories** check box is intended to restrict access to Server files and directories, and is selected by default. When this check box is selected, access to the Server data directory, Archive Directory, and Archive Index Directory is enabled. You can allow access to additional files and directories, by entering each one in the **Directory** grid.

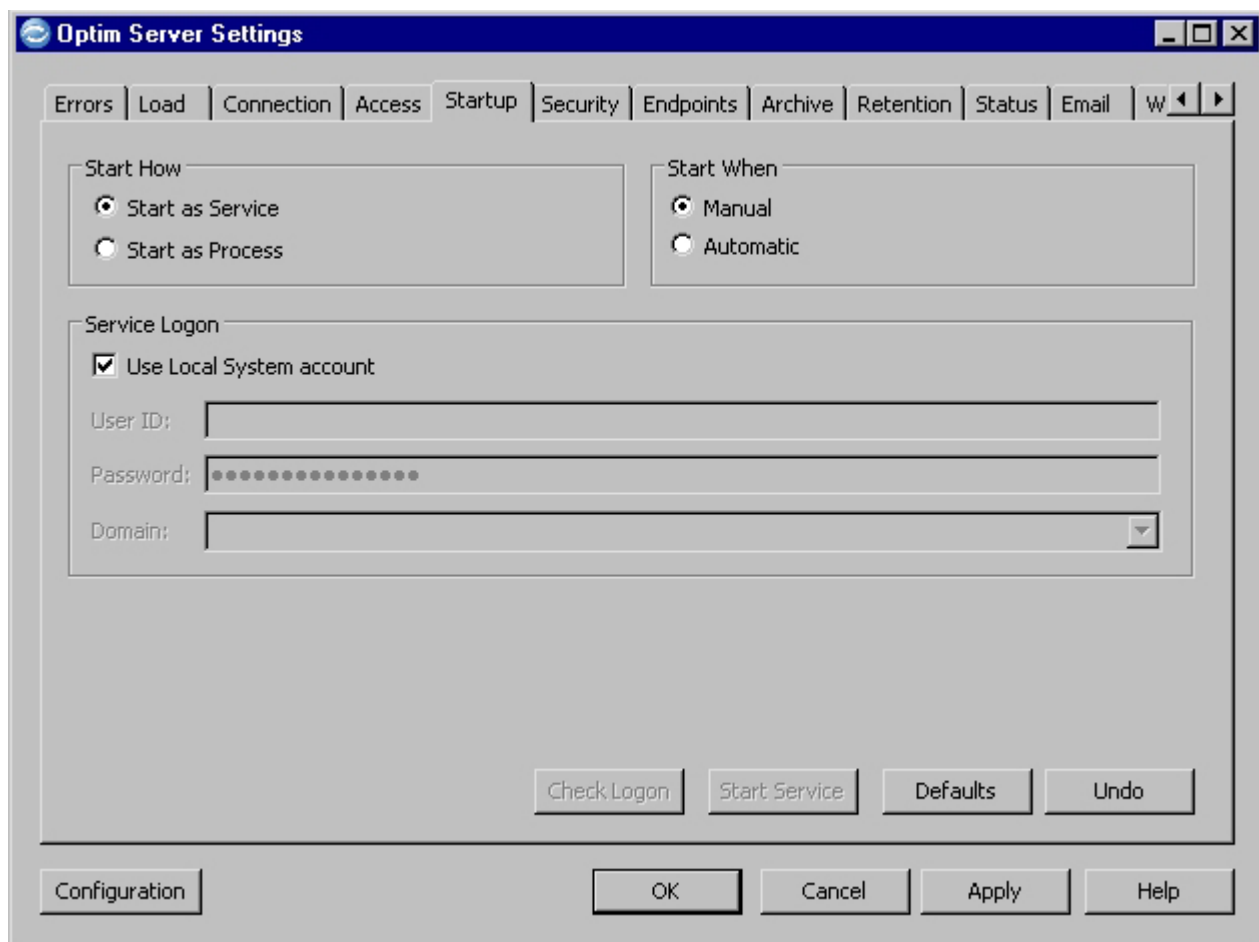
Clear the check box to provide access to all Server files and directories.

Directory

Enter paths to specific directories and subdirectories accessible to delegating workstations. Click the browse button to select from a list.

Startup Tab

Use the **Startup** tab to assign startup information.



Start How

Start as Service

The Server is enabled when the machine is started. A service does not need a currently logged on user (the machine can be left unattended).

Note: When the Server runs as a service, mapped drives are unavailable.

Start as Process

The Server starts in a DOS window. The security of the logged-on user applies; you cannot use a service logon.

Start When

When **Start as Service** is selected:

Manual

Only the logged-on user can start the Server. (You can use the Optim Server Settings dialog to start the Server.)

Automatic

The Server starts when the system boots.

When **Start as Process** is selected:

Manual

Select Optim from the Windows Start Menu.

Automatic

When Optim starts, Optim is added to the Start/Startup menu.

Service Logon

When **Start as Service** is selected, you must provide service logon information.

Use Local System account

Select this check box to use the logon information for the local machine, as provided on the Personal Options **Server** tab.

If you clear this check box, you must provide explicit credentials, as follows.

User ID

Enter the appropriate User ID.

If these Server credentials are used to access files external to the Server, the User ID must have the following privileges:

- Act as part of the operating system (SeTcbPrivilege)
- Increase quotas (SeIncreaseQuotaPrivilege)
- Replace a process level token (SeAssignPrimaryTokenPrivilege)
- Bypass traverse checking (SeChangeNotifyPrivilege)

For more information about these privileges, refer to “Server Privileges for Explicit or Client Credentials” on page 371.

Password

Enter the password corresponding to the User ID.

Domain

Specify the domain.

Check Logon

Click **Check Logon** to verify that the Server can log on with the credentials provided. This button is available if the **Use Local System account** check box is cleared.

Start/Stop Service

This button is available if **Start as Service** is selected and applied.

Security Tab

Use the **Security** tab to choose the source of the logon information for the Server.

The screenshot shows the 'Optim Server Settings' dialog box with the 'Security' tab selected. The 'Acquire Logon Identification from the following source:' section has three rows: 'Optim Directories:', 'DB Aliases:', and 'File Input/Output:'. Each row has two radio buttons: 'Server' and 'Client'. In all three rows, the 'Client' radio button is selected. Below this, there is a section titled 'Use this Logon for accessing Files' which contains a checkbox labeled 'Only files local to this Server may be accessed' (which is unchecked). Underneath the checkbox are three input fields: 'User Id:', 'Password:', and 'Domain:'. At the bottom of the dialog, there are several buttons: 'Configuration', 'Check Logon', 'Defaults', 'Undo', 'OK', 'Cancel', 'Apply', and 'Help'. The status bar at the very bottom indicates 'Ready'.

Select options to indicate the source of the logon information when the Server requires access to Optim Directories, DB Aliases, and Input and Output files.

Optim Directories

Server Select to use the User ID and password provided on the **Connection** tab for *Server* access to the Optim Directory.

Client Select to use the User ID and password for *Server* access to the Optim Directory, as provided in Personal Options for the delegating workstation. (In Personal Options, you can also require a password each time, or deny access. Refer to “Server Tab” on page 269 for more information.)

DB Aliases

Server Select to use the User ID and password provided on the **Connection** tab for Server use of DB Aliases.

Client Select to use the User ID and password for Server use of DB Aliases, as provided in Personal Options on the delegating workstation. (In Personal Options, you can also require a password each time, or deny access. Refer to “Server Tab” on page 269 for more information.)

File Input/Output

Server Select to use the Service Logon on the **Startup** tab. This setting applies only when Server credentials are used for file access.

Client

- Select this option to use User ID, password, and domain specified on the **Server** tab in Personal Options on the delegating workstation for Server local disk and network share access. Refer to “Server Tab” on page 269 for more information.

The delegating credentials must have the following privilege.

- Log on as a batch job (SE_BATCH_LOGON_NAME)

(Note that, in some installations, you can give this privilege to everyone in the Local Security Policy, instead of specifying credentials for each user.)

Use this Logon for accessing files

If files are accessed using Server credentials, you must indicate the source of those credentials.

Only files local to this Server may be accessed

Select **Only files local to this Server may be accessed** to restrict Server access to local files. Clear the check box to provide Logon information needed for Server access to files.

User ID

Enter the appropriate User ID.

If these credentials are used to access files external to the Server, the User ID must have the following privileges:

- Act as part of the operating system (SeTcbPrivilege)
- Increase quotas (SeIncreaseQuotaPrivilege)
- Replace a process level token (SeAssignPrimaryTokenPrivilege)
- Bypass traverse checking (SeChangeNotifyPrivilege)
- Log on as a batch job (SE_BATCH_LOGON_NAME)

Password

Enter the password corresponding to the User ID.

Domain

Specify the domain.

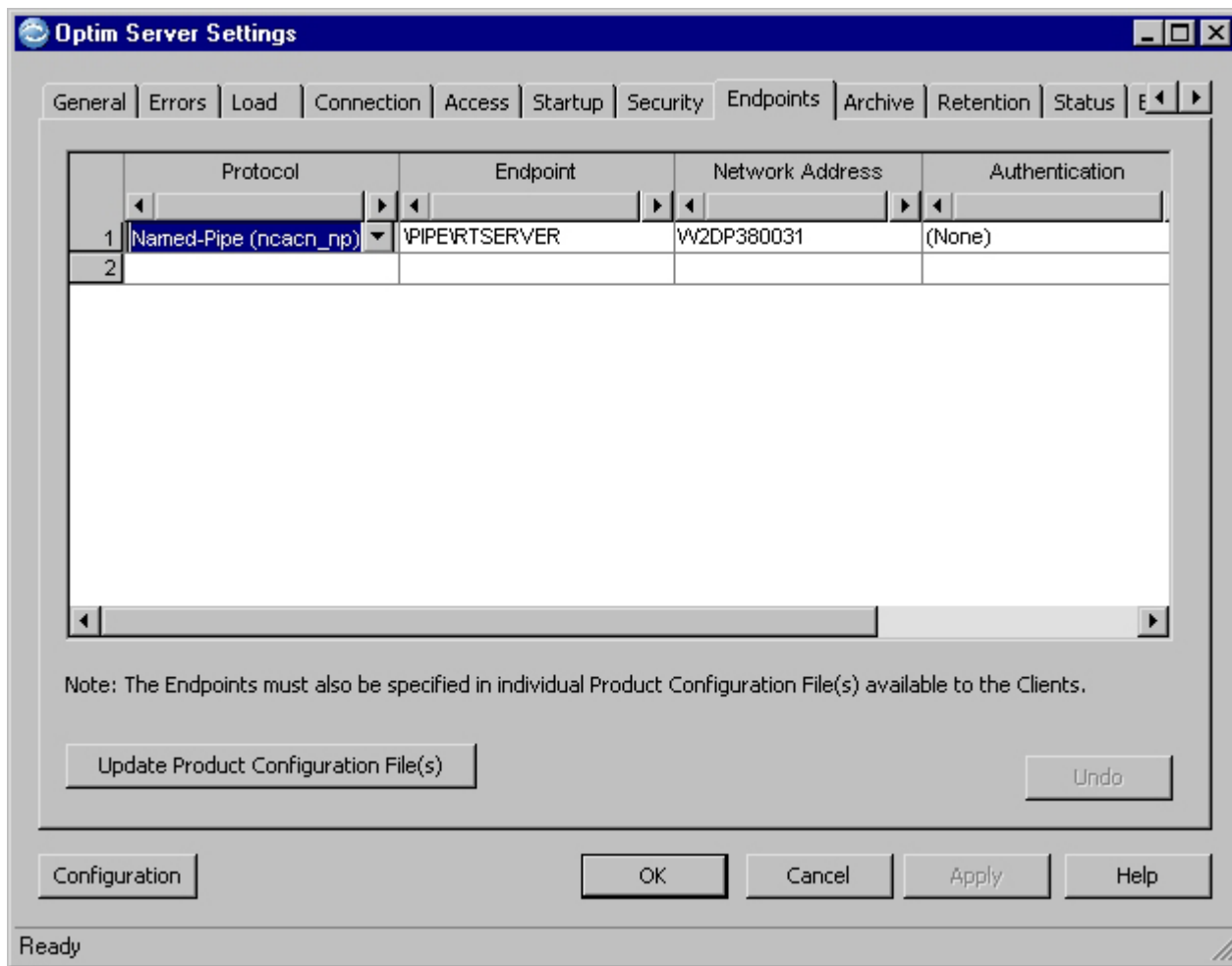
Check Logon

Click **Check Logon** to verify that the Server can log on with the credentials provided.

Endpoints Tab

Use the **Endpoints** tab to specify protocols to be used by workstations connecting to the Server for remote procedure calls.

The protocol Named-Pipe (ncacn_np) and endpoint \PIPE\RTSERVER are entered by default. This is usually the most efficient method for workstations in the domain to connect to the Server. To add access for a workstation outside the domain, you must add the additional protocol.



You can include all protocols and endpoints available to the Server by clicking the down arrow in **Protocol** and selecting **Supported Protocols (All)** from the list. Endpoints are created for every available protocol. When configured this way, workstations must query an RPC Locator for the endpoints when connecting to the Server. This query introduces a small delay when the server is first selected and may compromise security.

Note: When **Supported Protocols (All)** is selected, **Endpoint** displays an asterisk (*) and **Network Address** displays the computer name.

Grid Details

Protocol

Click the down arrow to select from a list of available protocols.

Endpoint

Specify the endpoint, or address, that corresponds to the specified protocol. (The format and content depend on the specified protocol.)

Network Address

Displays the network address of the Server. (The format and content depend on the specified protocol.)

Authentication

In selecting a level of security, the needs of your site must be weighed against potential performance compromises.

- The higher the protection level, the greater the overhead required.
- The more often verification is requested, the more time required to complete a process.

Select the appropriate level of authentication.

None No authentication is required.

During Connect (first call only)

Authenticate when the user connects to the Server on the first call. This security level ensures only that the connection is valid and is from the proper user. No further authentication is made and transferred data is not verified. This level of security requires the least overhead and, of the available options, offers the least security.

Every Call

Authenticate the user each time data is exchanged, regardless of number of packets.

Each Packet

Confirm that each packet of transferred data is received from the authenticated user. This level of security requires more overhead and offers more protection than the Connect Level.

Each Packet (Verify not changed)

Confirm that each packet of transferred data is received from the authenticated user and verify that it has not been modified. This level of security requires more overhead and offers more protection than the Packet Level.

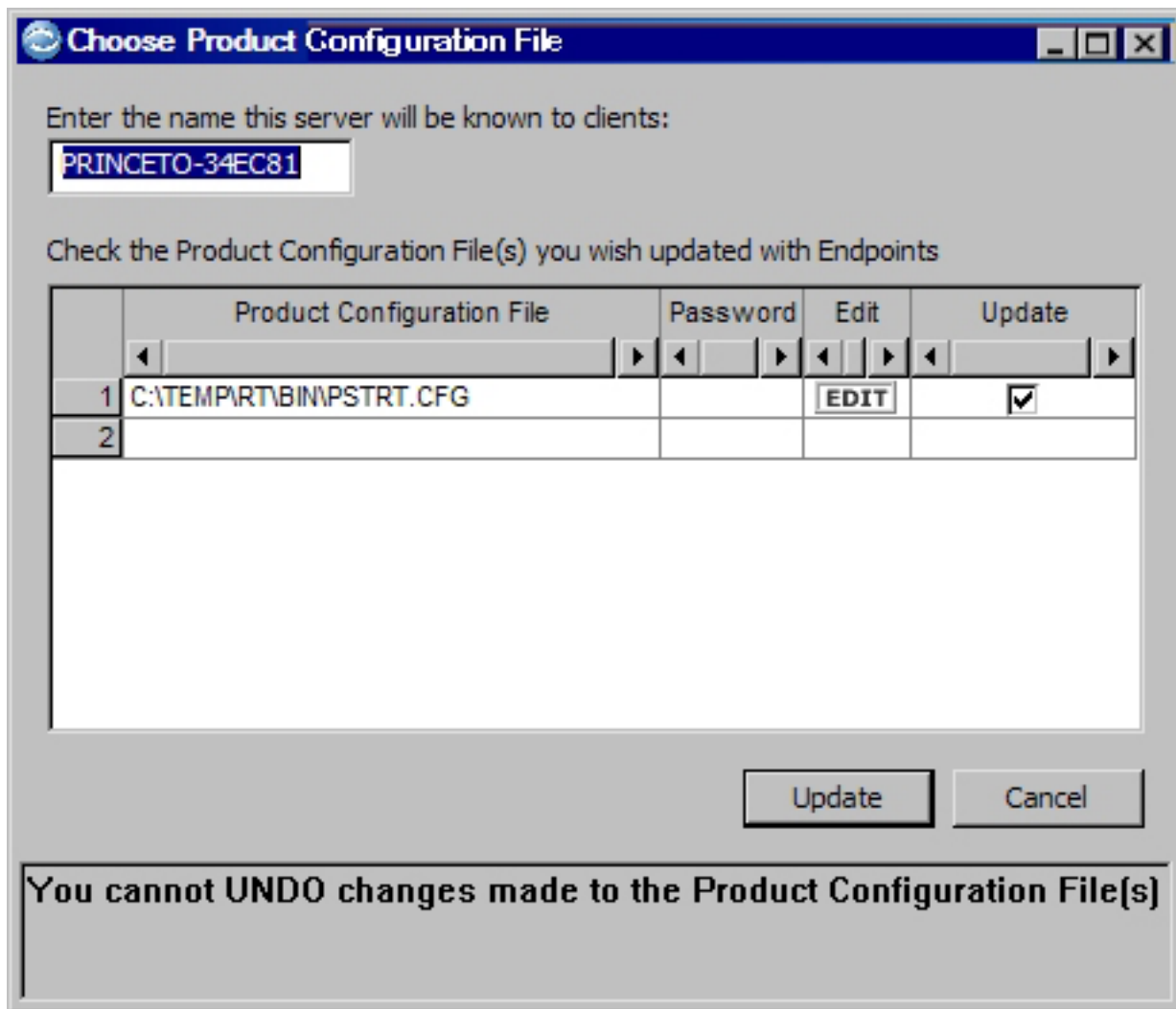
Each Packet (Verify not changed and Encrypt)

Confirm that each packet of transferred data is received from the authenticated user, verify that it has not been modified, and encrypt the argument value of each remote procedure call. This level of security requires the most overhead and, of the available options, offers the most protection.

Update Product Configuration Files

Each workstation to connect to the Server must use a Product Configuration File that includes Server endpoint information. The Product Configuration File used by a workstation is specified in Personal Options.

To update Product Configuration Files with new information entered on the **Endpoints** tab, click **Update Product Configuration File(s)**. Use the Choose Product Configuration File dialog to list Product Configuration Files to update.



Note: If a Product Configuration File to be updated is unavailable from the Choose Product Configuration File dialog, the file must be updated manually on the corresponding workstation.

Enter the name this server will be known to clients

Enter a name for the Server. The name you enter is added to the list of available Servers displayed in action request editors that can use a Server for remote processing.

Grid Details

Product Configuration File

Specify the complete path to each Product Configuration File to be updated. To select from your system directories, click the grid cell and click the browse button.

Each time you enter a Product Configuration File, you are prompted for the corresponding password. The password is set in Product Options.

Password

When you enter the password for a Product Configuration File the first time, the password is saved for future updates to the Product Configuration File. For security reasons, the password displays as a series of asterisks (***).

Edit Click **Edit** to display the Product Options Editor for the corresponding Product Configuration File.

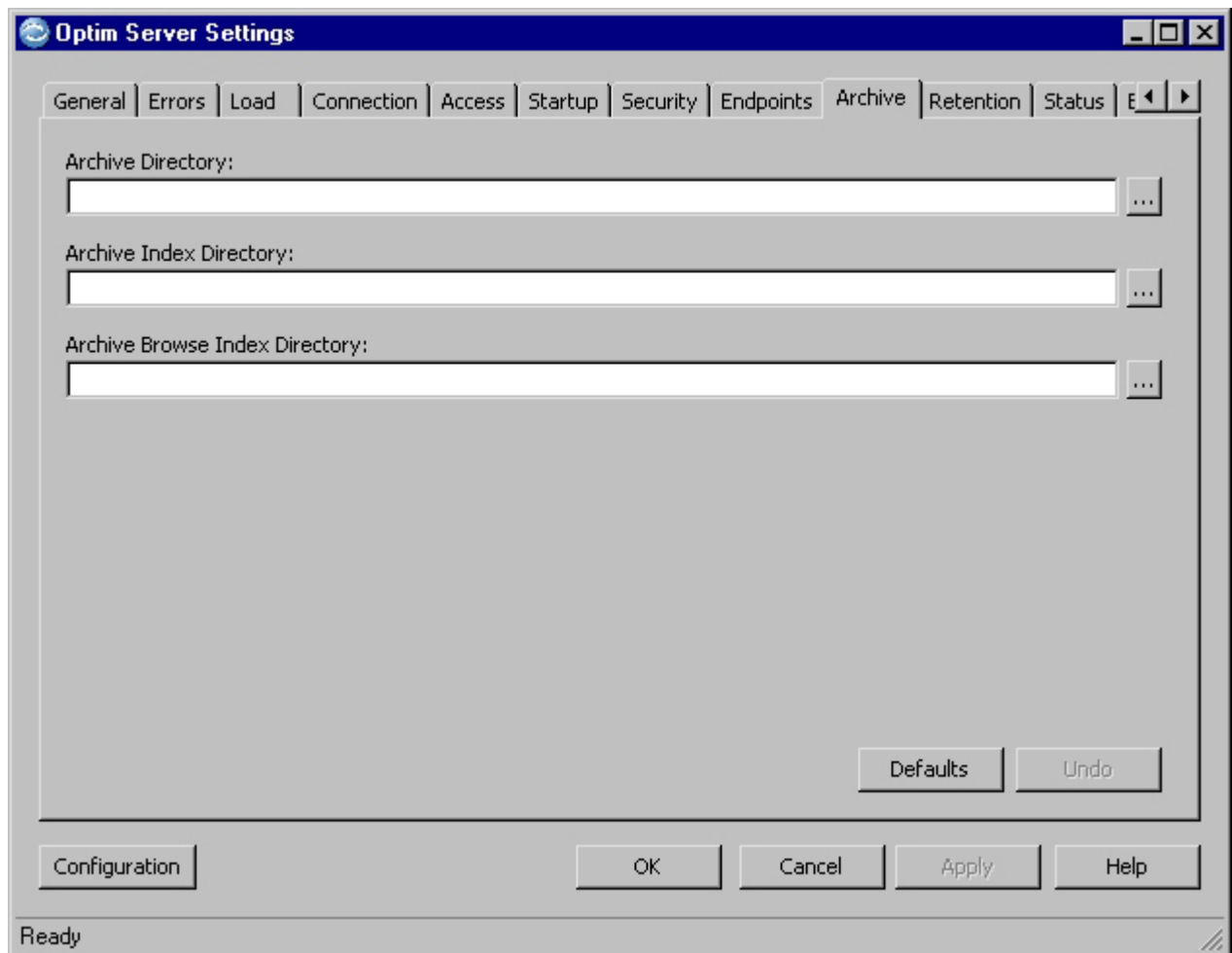
Update Select the check box to include the corresponding Product Configuration File to be updated.

Update

Click **Update** to update each selected Product Configuration File with the new endpoint information.

Archive Tab

Use the **Archive** tab to enter the path to the default Archive, Archive Index, and Archive Browse Index Directories for the Server.



Archive Directory

Specify the complete path to the default directory where you want the Server to store Archive Files. To select from your system directories, click the browse button. If you do not specify a directory, the Data Directory specified on the **General** tab is used by default.

Archive Index Directory

Specify the complete path to the default directory where you want the Server to store Archive Index Files. To select from your system directories, click the browse button. If you do not specify a directory, the Archive Directory is used by default.

Archive Index Browse Directory

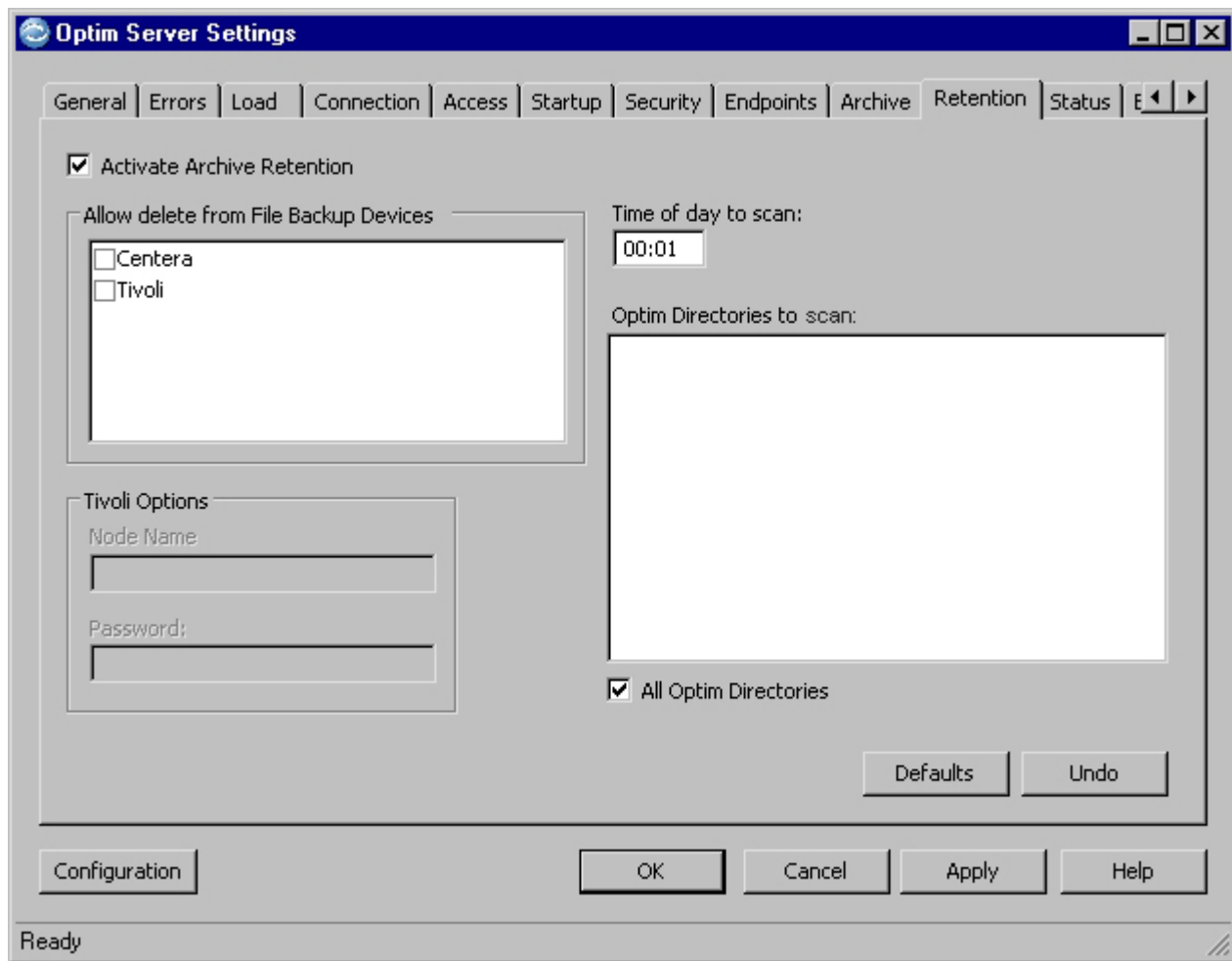
Specify the complete path to the default directory where you want the Server to store Archive Index Browse Files. To select from your system directories, click the browse button. If you do not specify a directory, the Archive Directory is used by default.

An Archive Index Browse File is created automatically whenever you join tables while browsing an Archive File. The Archive Index Browse File stores primary key and foreign key information to expedite the retrieval of data, and has an .abf extension, by default. Archive Index Browse Files are dynamically updated, so it is advisable to select a directory accessible to any user that may browse an Archive File.

Retention Tab

A retention policy allows you to automatically delete Archive Files that reside on the Server. When Archive Retention is activated, the Server scans Optim Directories for Archive Files with a retention policy. The **Retention** tab allows you to activate Archive retention, select the Optim Directories to scan, the time of day to scan, and configure options for deleting Archive Files from File Backup Devices (e.g., EMC Centera and IBM Tivoli®).

For more information about specifying a retention policy, see the *Archive User Manual*.



Activate Archive Retention

Select this check box to scan the selected Optim Directories. If you clear the check box, the Optim Directories are not scanned, but the parameters on the **Retention** tab remain.

Allow delete from File Backup Devices

List of the Backup Devices integrated with Archive. Select the appropriate check box(es) to allow the device to delete the Archive File when the retention policy has elapsed.

Tivoli Options

Specify the node name and password that allow the Server to access the Tivoli tape backup device.

Note: To use a Tivoli device, you must install the Tivoli client and API support on the machine where the Optim Server runs.

Node Name

Identifier needed to access the Tivoli tape backup device.

Password

Password needed to access the Tivoli tape backup device.

Note: For security reasons, the password is displayed as a series of asterisks (****).

Time of day to scan

The time to begin scanning the Optim Directories. Use 24-hour time format, for example 1:30 p.m. is 13:30.

Optim Directories to scan

Optim Directories registered with the Server. Select the Optim Directories to scan for Archive Files with a retention policy.

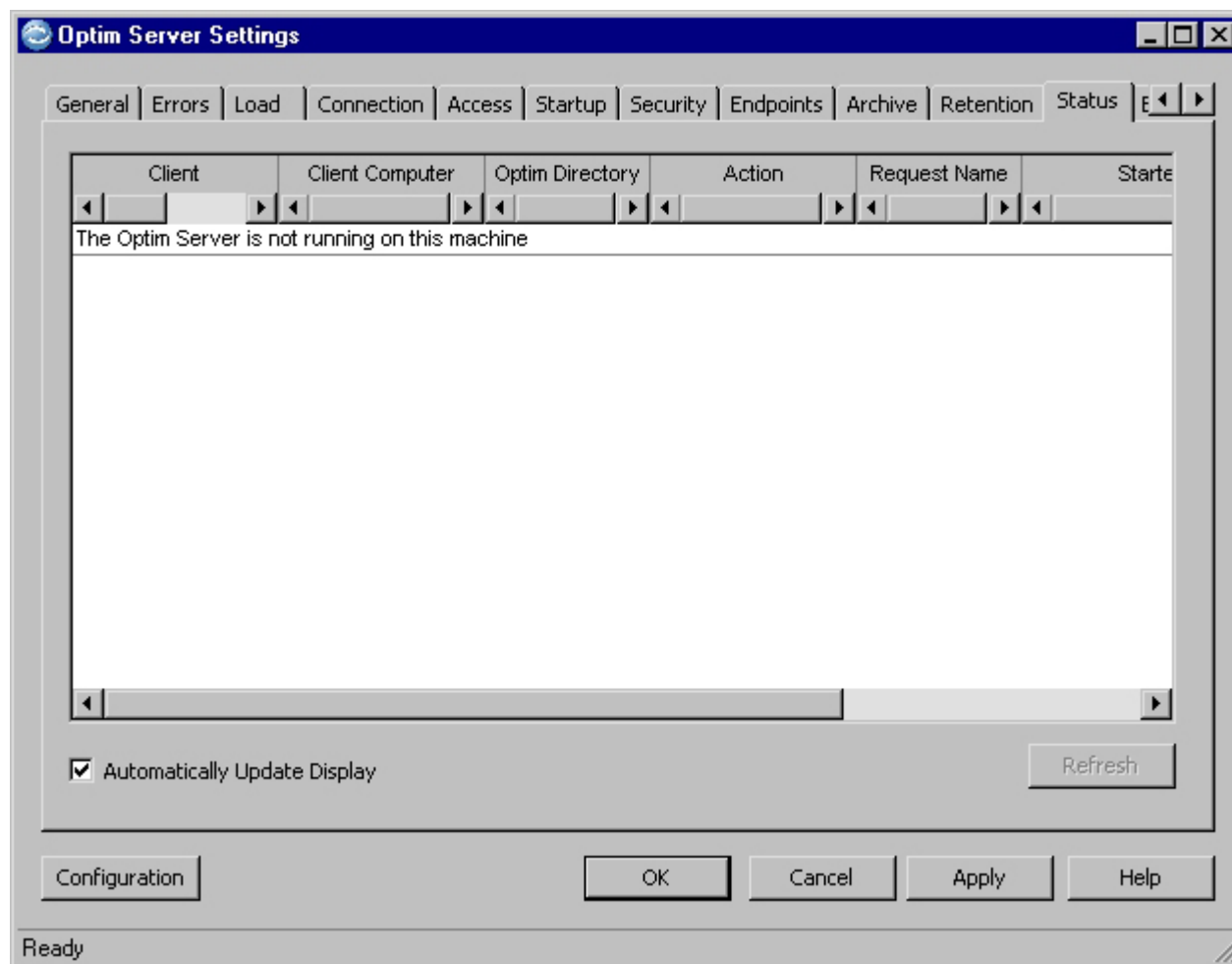
All Optim Directories

Select to automatically scan all Optim Directories registered with the Server.

Note: Selecting this option also ensures that any future Optim Directories registered with the Server are scanned.

Status Tab

The **Status** tab displays the current connections to the Server.



Grid Details

The following details display in the grid.

Client The sign-on user name for the user.

Client Computer

The network computer name for the computer.

Optim Directory

The name of the Optim Directory in which the request resides.

Action

The type of action that is running.

Request

Displays the fully qualified name of the request that is running, or “Mirror” to indicate the validation processing associated with the action that is running.

Started

The date and time the action started.

Duration

The duration of the connection.

Automatically Update Display

Select this check box to automatically update (refresh) the display whenever a connection is established or broken, and update the **Duration** column in the grid every minute.

Refresh

Select **Refresh** to update the display on demand. (**Refresh** is unavailable when the **Automatically Update Display** check box is selected.)

Note: You can right-click on a row and choose **Cancel Request** to cancel the specific connection with the workstation, or **Cancel all for Client** to cancel all connections with the workstation.

Email Tab

The **Email** tab allows you to automatically send “logged” messages generated by the Server to the listed email addresses. The Server sends messages that are reported to the Windows Event Log (for Windows) or the syslog (for UNIX or Linux).

Note: Before using administrator email notification, the desired email program must be installed. For Windows, the email client must be defined as the default, and set up to interface with MAPI. For UNIX or Linux, a valid copy of SENDMAIL must be configured correctly.

Optim Server Settings

Errors | Load | Connection | Access | Startup | Security | Endpoints | Archive | Retention | Status | Email | W ◀ ▶

☒ Activate Administrator Email Notification

Email Address	Minimum Severity
user@company.com	Error

Do not send duplicates for day(s)

☐ Clear send history when Optim Server starts

Email Transport Defaults Undo

Configuration OK Cancel Apply Help

Ready

Activate Administrator Email Notification

Select this check box to activate email notification. The other options on this tab are unavailable unless this check box is selected.

Note: Deselecting the check box does not clear the **Email** tab settings.

Email Address

Enter an email address to which to automatically send notification. A message is sent to the email address only if the specified Minimum Severity is reached.

Minimum Severity

For each email address you list, select the minimum severity needed to send a message. The severity levels are ranked from least severe (Success) to most severe (Exception). Click the down arrow to display a drop-down list with the following severity levels:

Success

Send email notification for all processing messages including Success.

Information

Send email notification for Information or more severe messages.

Warning

Send email notification for Warning or more severe messages.

Error Send email notification for Error or more severe messages.

Exception

Send email notification for Exception messages.

To clear entries, right-click a grid cell and select **Remove** or **Remove All** from the shortcut menu.

Do not send duplicates for ... day(s)

Specify the number of days (1 to 999) before email notification is resent for a persistent error or warning.

Clear send history when Optim Server starts

Select this check box to clear the send history once the Server is started. When selected, any email notification that took place prior to the starting of the Server is ignored.

Send Test eMail

Right-click a grid row and select **Send Test eMail** to validate the email address.

Email Transport

Click this button to display the Email Transport dialog so that you may activate and configure the Collaboration Data Object (CDO) transport to send email. If you don't click this button, email is sent using the Simple Mail Protocol Transport (SMTP).

Note: You must use the CDO transport if the email client on the server requires logon credentials to send an unattended message or requires user input when SMTP is used to send a message. Also, select the CDO option if the server uses a Microsoft Outlook client (version 2000 or later) to send messages through a Microsoft Exchange server.

Email Transport

☒ Activate Collaboration Data Object Transport (Uncheck to use Simple Mail Transport Protocol)

Set from one of these known Email Servers:

(Custom)

Exchange Server Name or Internet SMTP Outgoing Server's Name: EXCHANGESERVER Port (if not standard):

Sender's mailbox (From address): MyAccount@MyExchangeServer.com

Email account logon: MyUserID Logon domain: MYDOMAIN Email account password:

Send Test Email OK Cancel

Activate Collaboration Data Object Transport

If you use the SMTP email transport, keep this check box cleared (default) and select **OK**. A popup will ask you if you want to connect without entering a password. If you use the CDO email transport, select this check box to enable the dialog and continue entering information.

Set from one of these known Email Servers

Click to select an account from the list and populate the remainder of the Email Transport dialog with information for the selected account.

Exchange Server Name or Internet SMTP Outgoing Server's Name

Type an exchange server name or internet address.

Port (if not standard)

Type a port name or leave blank (default port).

Sender's mailbox (From address)

Type the sender (From) email address.

Email account logon

Type the email logon name.

Logon domain

Type the domain name.

Email account password

Type the password. A blank password is valid if the account allows it; a prompt will confirm that you want to connect without entering a password.

Send Test Email

Click this button to send a test email to your mailbox.

Note: It is recommended that you send a test email to ensure that the information you entered is sufficient to send an email. If you do not receive the test email, make the necessary corrections to the information you entered.

Conclusion

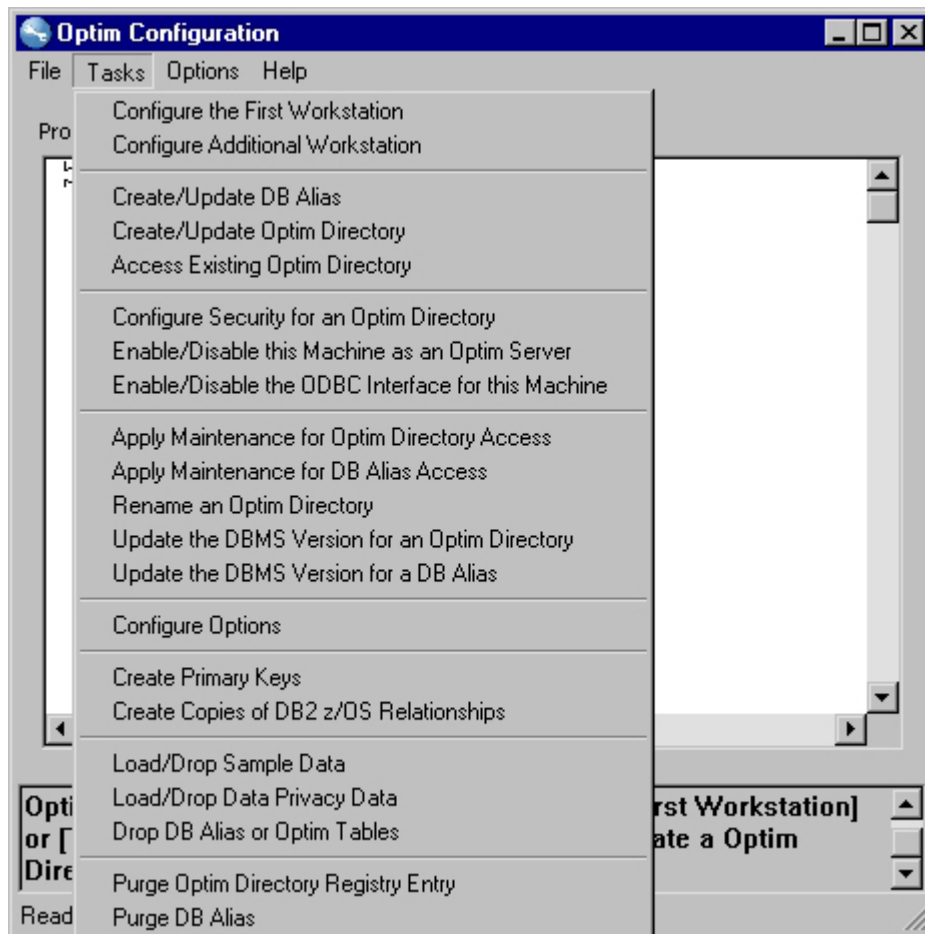
After you configure the first workstation, any additional workstations, and any Servers, you are ready to start using Optim.

Note: If you make changes to the configuration of a Server while it is running, click **Apply**, then stop and start the Server to effect the changes.

The remaining sections explain how to use the various other commands available from the **Tasks** menu of the Configuration program.

Chapter 7. Maintenance and Other Configuration Tasks

After you configure the first and any additional workstations, you are ready to start using Optim. However, periodically, it may be necessary to perform other tasks that are available from the **Tasks** menu.



For example, to expand the number of databases, you can create or update a DB Alias, apply maintenance for DB Alias access, or update the version of the DBMS. Similarly, you can create an additional Optim Directory, apply maintenance for Optim Directory access, or update the version of the DBMS for an Optim Directory. You can also select options to purge a DB Alias or purge an Optim Directory registry entry.

Other tasks include configuring Product and Personal Options, creating primary keys, and creating copies of DB2 z/OS relationships to be used in Optim. You may also load or drop the sample data included with Optim; this data provides a starting point for using many features in Optim. If you have a Data Privacy License, you may also load and drop the data privacy data tables provided with Optim. You may also choose to drop a DB Alias or Optim Directory Tables as well as enable or disable the Optim Security features. Each task is described in the following sections.

Create/Update DB Alias

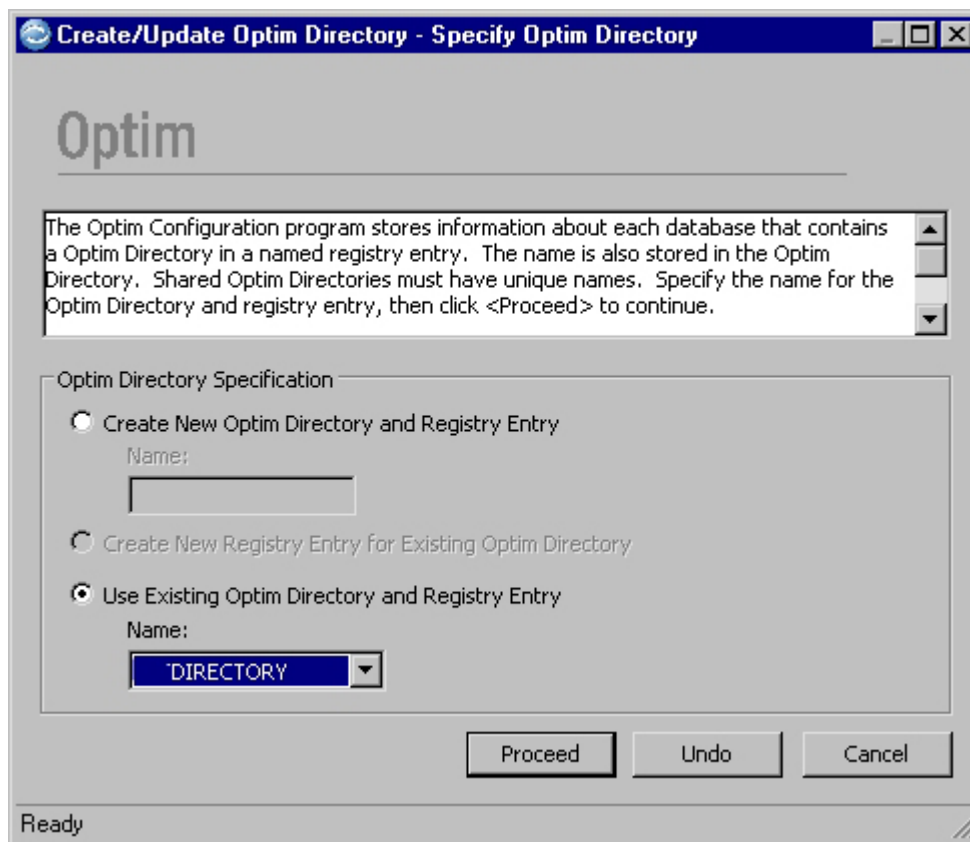
Optim supports the use of any number of database instances. However, there must be a unique DB Alias in the active Optim Directory for each database instance. A DB Alias serves as a high-level qualifier for naming database tables and provides a single name for connecting to a particular database. You can define the necessary DB Aliases at installation, or use the Configuration program to add DB Aliases after installation by selecting **Configuration Assistant** from the **Help** menu or by selecting **Create/Update DB Alias** from the **Tasks** menu.

Notes:

- If using the Server to access data referenced by the DB Alias, you also must add the DB Alias information to the **Connections** tab on the Optim Server Settings applet. See Chapter 6, “Configure the Optim Server,” on page 143.
- If Object Security is enabled and DB Alias objects are secured when saved, a new DB Alias is secured by an ACL modeled after the Optim Object Template ACL. If the Optim Object Template ACL has not been defined when you create a DB Alias, you must define an ACL for each object that requires an ACL. For more information about securing objects, see “Access Control List” on page 405.

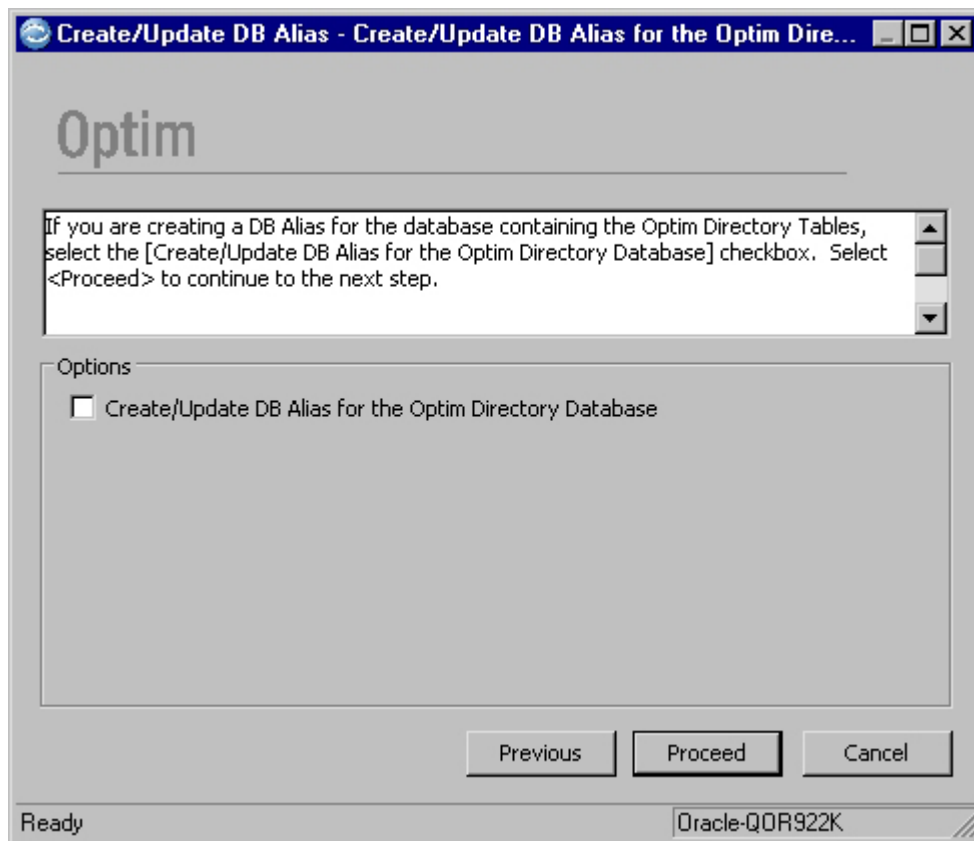
Specify Optim Directory

The first step in creating a new DB Alias is to specify the Optim Directory where you want to store that DB Alias. The Configuration program displays the Specify Optim Directory dialog.



The option to **Use Existing Optim Directory and Registry Entry** is selected. Specify the name of the Optim Directory you want to use. To select from a list, click the down arrow. To continue, click **Proceed**.

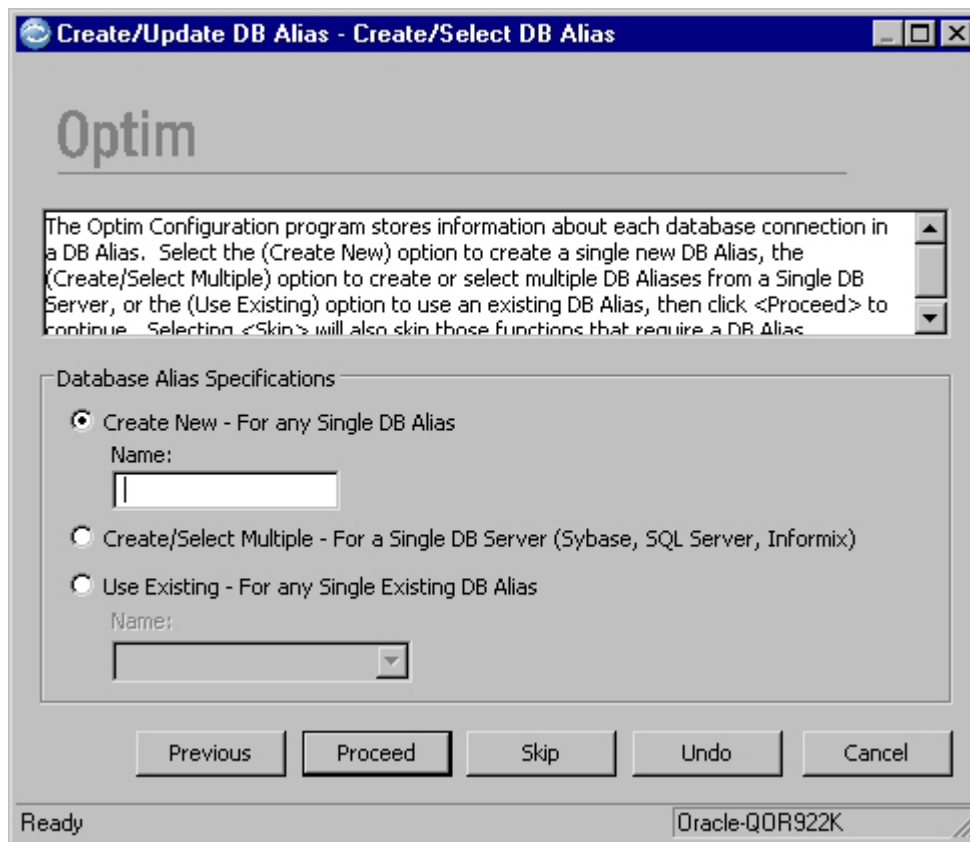
The Configuration program opens a query dialog.



If you plan to use Optim to access user tables (other than Optim Directory tables) on the database, select the **Create/Update DB Alias for the Optim Directory Database** check box. If you want to create a DB Alias for another database (or server), clear the check box.

Create/Select DB Alias

On the Create/Select DB Alias dialog, specify the DB Alias name.



From this point, the task is similar to creating a DB Alias when configuring the first workstation. For details, see “Create DB Aliases” on page 87.

You specify the DB Alias DBMS and then connect to the database (**User ID**, **Password**, and **Connection String**). You also create or update the DB Alias, packages, plans, or procedures. The following guidelines apply:

- If you update an existing DB Alias and you specify a valid connection string or qualifier (for packages, plans, or procedures) that differs from the one associated with the DB Alias, you are prompted to update the DB Alias.
- If you attempt to create a DB Alias for a database that has the same signature as an existing DB Alias, the Configuration program displays a warning message.
- For Sybase ASE or SQL Server, if you intend to convert existing DB Aliases to use shared stored procedures, select the **Create/Select Multiple** option.
- For SQL Server, if you selected to create/select multiple DB aliases, the User ID must have database owner (dbo) privileges.

After you create the DB Alias, you can create Optim Primary Keys and Load the Sample Tables included with Optim. If you have a Data Privacy license, you may also load and drop the Data Privacy Data Tables provided with Optim. The Configuration program then prompts you to create or update DB Aliases for other databases and repeats the process. Otherwise, the process completes and returns to the main window.

Create/Update Optim Directory

Optim supports using one or several Optim Directories; however, each workstation can use only one Optim Directory at a time. In other words, a workstation cannot access information in one Optim Directory while using Optim with a different Optim Directory. Each Optim Directory must have unique DB Aliases for the databases used with Optim and unique identifiers for the packages, plans, or procedures associated with the databases.

In most cases, a site uses only one Optim Directory that is created when the first workstation is configured. However, you may create an additional Optim Directory as a step in relocating the Optim Directory or when a new Directory is required by an upgrade to Optim.

For example, if a site were to have an Optim Directory in an Oracle database and decided to move it to a DB2 database, the administrator could export a copy of the Optim objects in the Oracle database to an external file. The administrator would then create the second Optim Directory in the DB2 database, and import the Optim objects before dropping or disabling the original Optim Directory.

Creating an additional Optim Directory is similar to creating an Optim Directory when configuring the first workstation. First, you create the Optim Directory. Then, you create DB Aliases and configure the databases to be used with Optim when linked to the Optim Directory. Next, you create or specify the Product Configuration File and modify Personal and Product Options, as needed. You can also initialize Optim Security for the Optim Directory. For complete information on creating an Optim Directory, refer to “Create Optim Directory” on page 72.

Access Existing Optim Directory

A workstation uses a Windows registry entry to access the Optim Directory. This registry entry is typically created when the workstation is configured, however, if a workstation must access more than one Optim Directory, you must create entries for each Optim Directory after the first.

The **Access Existing Optim Directory** task replicates the steps described in “Create Registry Entry” on page 134. You must specify the Optim Directory and the DBMS Type and Version for the database where the Optim Directory is stored. In addition, you must provide information to connect to the database, including an identifier for Optim Directory tables. This task does not prompt to create a separate Product Configuration File or to modify Product or Personal Options.

Configure Security for an Optim Directory

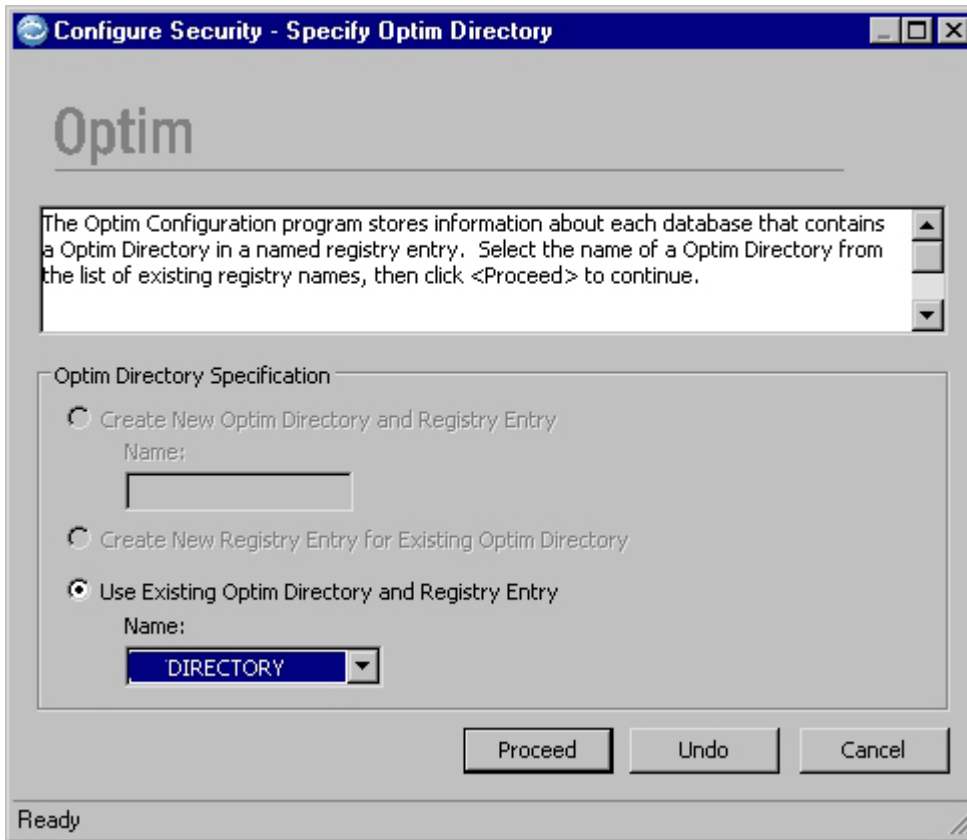
To initialize Optim Security and assign the Security Administrator for the directory, select the **Configure Security for an Optim Directory** option from the Configuration program **Tasks** menu. Only one Security Administrator can be assigned to an Optim Directory. After Optim Security is initialized, the Security Administrator can use this option to enable or disable Functional Security, Object Security, and Archive File Security.

Note: You can also initialize Optim Security from the following Configuration program options: **Configure the First Workstation**, **Create/Update Optim Directory**, and **Configure Options**; however, you can both initialize Optim Security and enable the security features from the **Configure Security for an Optim Directory** task only.

The Security Administrator can also control access to the (Default) Access Control Domain (ACD) and Access Control List (ACL).

Specify Optim Directory

When you select **Configure Security for an Optim Directory** from the **Tasks** menu in the Configuration program, the Specify Optim Directory dialog is displayed. The option to **Use Existing Optim Directory and Registry Entry** is selected. Specify the name of the Optim Directory you want to use. To select from a list, click the down arrow.



When you click **Proceed** and:

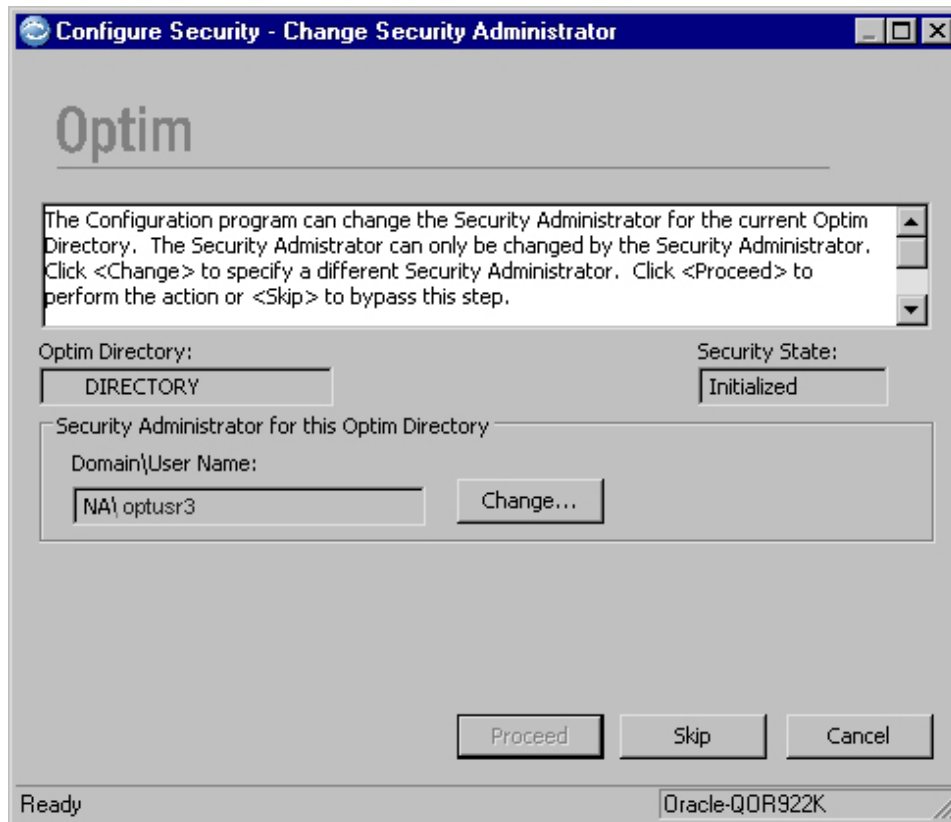
- Optim Security is not initialized for the Directory, the Initialize Security dialog is displayed.
- Optim Security is initialized, the Change Security Administrator dialog is displayed.

Initialize Security or Change Security Administrator

Use the Initialize Security dialog to assign a Security Administrator and initialize Optim Security for the Directory. After security is initialized, the Set Archive File Security Option dialog is displayed.

For more information about the Initialize Security dialog and initializing Optim Security, see “Optim Security” on page 120.

Use the Change Security Administrator dialog to change the Security Administrator for the Optim Directory. If you do not want to change the Administrator, click **Skip** to proceed to the Set Archive File Security Option dialog.



Optim Directory displays the Directory name, and Security State indicates that security is *Initialized*. Security Administrator for this Optim Directory identifies the Security Administrator by the two-part **Domain\User Name**.

Changing the Administrator

To change the Security Administrator, click **Change**. The Configuration program displays the next dialog, depending on the following:

- If the Security Administrator is not signed on to the workstation, the Specify Domain Connection Information dialog is displayed and the administrator must enter the domain password.
- If the Security Administrator is logged on to the workstation or a password is supplied, the Specify Domain Connection Information dialog allows the user to specify a new Security Administrator. For more information, see “Specify Domain Connection Information” on page 122.

After specifying a new Security Administrator, **Security Administrator for this Optim Directory** displays the new Administrator and **Proceed** is available. You must click **Proceed** to complete the change of Administrator.

If a new Security Administrator is specified, clicking **Skip** will cancel the change of Administrator.

After clicking **Skip** or **Proceed**, the Set Archive File Security Option dialog is displayed.

Click **Cancel** to exit the security configuration process and cancel any changes to the Security Administrator.

Set Functional Security Option

The Set Functional Security Option dialog allows the Security Administrator to enable or disable Functional Security for the Optim Directory. Functional Security controls access to functions and dialogs in Optim.

For more information about Functional Security, see “Privileges Tabs” on page 396.



Optim Directory indicates the directory name, and **Security Feature** shows that Functional Security is the option you can enable or disable. **Security State** indicates that security for the option is Enabled or Disabled. **Security Administrator for this Optim Directory** displays the Security Administrator.

Configuring Functional Security

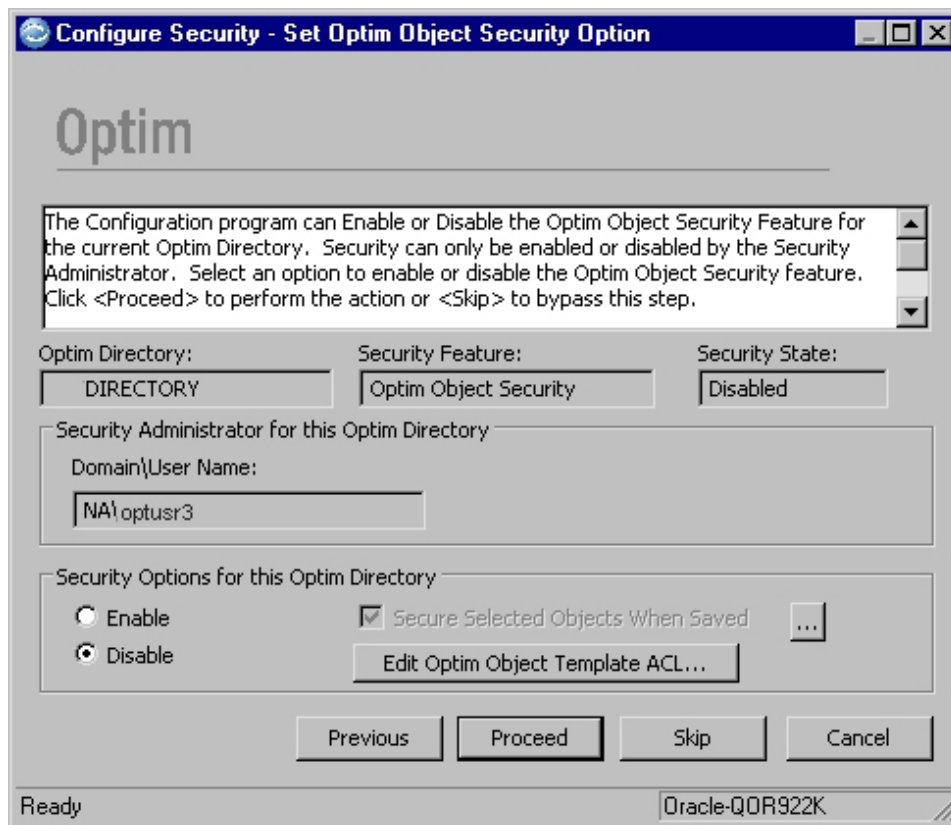
To enable or disable Functional Security, select **Enable** or **Disable** and click **Proceed**. If the Security Administrator is not signed on to the workstation, the Specify Domain Connection Information dialog is displayed and the password for the Security Administrator must be entered.

Important: Before Functional Security is first enabled, the Security Administrator must open the (Default) ACD and establish Functional Privileges for all users. If Functional Privileges are not defined before Functional Security is enabled, users will be unable to access any functions in Optim. For more information, see “Access Control Domain Editor” on page 390.

Set Optim Object Security Option

The Set Optim Object Security Option dialog allows the Security Administrator to configure Object Security for the Optim Directory. Object Security controls access to objects in the Optim Directory such as Column Maps and Access Definitions.

All security definitions are secured by an Access Control List (ACL). Other Optim objects that have an ACL are secured if Object Security is enabled. For more information about ACLs, see “Access Control List” on page 405.



Optim Directory displays the directory name, and **Security Feature** indicates Optim Object Security is the option you can enable or disable. **Security State** indicates that security for the option is Enabled or Disabled. **Security Administrator for this Optim Directory** displays the Security Administrator.

Configuring Object Security

Use the Set Optim Object Security Option dialog to configure Object Security by doing the following:

- Enabling or disabling Object Security.
- Indicating whether selected objects are automatically assigned an ACL when saved.
- Defining the Optim Object Template ACL.

To enable or disable Optim Object Security, select **Enable** or **Disable**.

After configuring Object Security, click **Proceed**. If the Security Administrator is not signed on to the workstation, the Specify Domain Connection Information dialog is displayed and the password for the Security Administrator must be entered.

Automatically Assigning an ACL

Use the **Secure Selected Objects When Saved** option to automatically assign an ACL to an object when it is saved. The ACL is modeled after the Optim Object Template ACL. For more information about using the Optim Object Template ACL, see “Optim Object Template ACL” on page 179.

Note: **Secure Selected Objects When Saved** is available only when **Enable** is selected.

To automatically assign an ACL to an object, select **Secure Selected Objects When Saved**. When **Secure Selected Objects When Saved** is selected, the browse button is available. Click the browse button to open the Select Optim Object Types dialog, which allows you to select the types of Optim objects that are automatically assigned an ACL when they are saved.

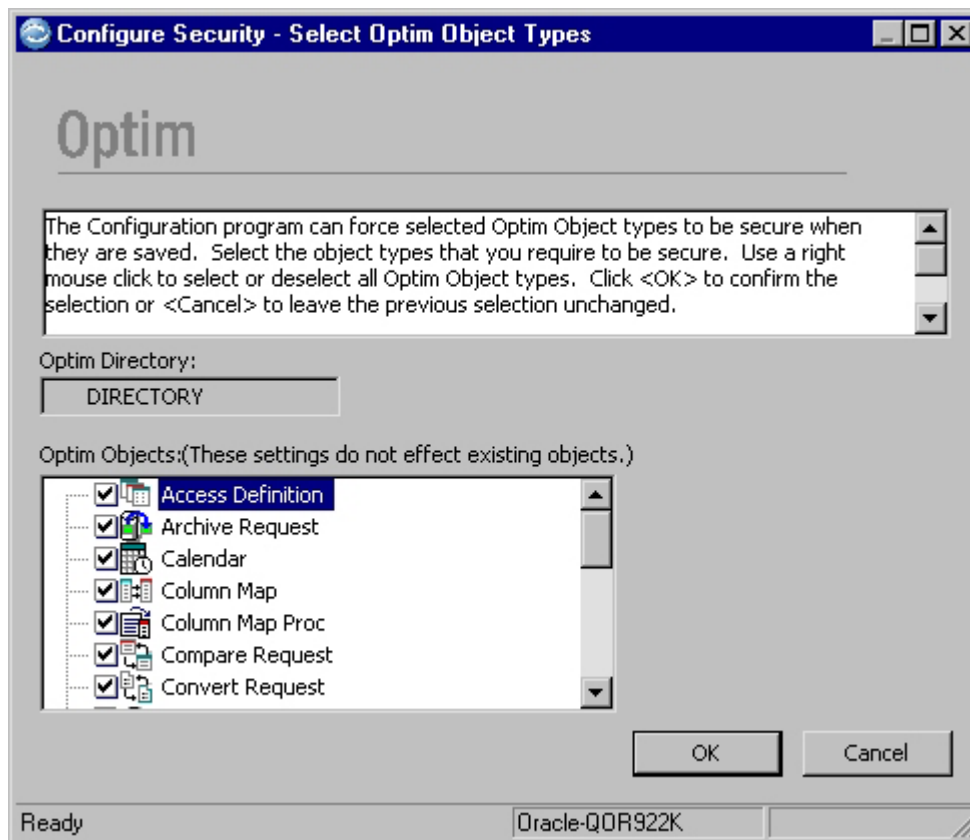
To secure objects with an ACL when saved:

1. In **Security Options for this Optim Directory**, select **Enabled**.
2. Select **Secure Selected Objects When Saved**.
3. Click the browse button to open the Select Optim Object Types dialog.
4. In the **Optim Objects List**, select the check box for each object type you want to automatically assign an ACL when saved.
5. Click **OK** to return to the Set Optim Object Security Option dialog.

Note: If **Secure Selected Objects When Saved** is selected, objects are automatically assigned an ACL when Object Security is either enabled or disabled.

Select Optim Object Types

Use the Select Optim Object Types dialog to select object types that are assigned an ACL when saved. Use the check boxes in the **Optim Objects** list to select the object types. To exclude an object type, clear the corresponding check box.



The following shortcut menu commands are available:

Select All

Select all objects in the list.

Deselect All

Clear all selections in the list.

Invert Selection

Reverse selected and unselected object types.

Optim Object Template ACL

ACLs for Optim objects are modeled after the Optim Object Template ACL. The Optim Object Template ACL does not secure any objects and can be edited by the Security Administrator only. The Security Administrator can open the Access Control List Editor and edit the Optim Object Template ACL from the Configuration program or the main window:

- From the Configuration program, click **Edit Optim Object Template ACL** from the Set Optim Object Security Option dialog.
- From the main window, click **Optim Object Template ACL** from the **Security** submenu on the **Options** menu.

For information about editing ACLs, see “Access Control List Editor” on page 407.

Set Archive File Security Option

The Set Archive File Security Option dialog allows the Security Administrator to enable or disable Archive File Security for the Optim Directory. Archive File Security controls access to tables and columns in Archive Files.

For more information about Archive File Security, see “Archive File Security” on page 384.



Optim Directory displays the directory name, and **Security Feature** indicates Archive File Security is the option you can enable or disable. **Security State** indicates that security for the option is Enabled or Disabled. **Security Administrator for this Optim Directory** displays the Security Administrator.

To enable or disable Archive File Security, select **Enable** or **Disable** and click **Proceed**. If the Security Administrator is not signed on to the workstation, the Specify Domain Connection Information dialog is displayed and the password for the Security Administrator must be entered.

Enable/Disable this Machine as an Optim Server

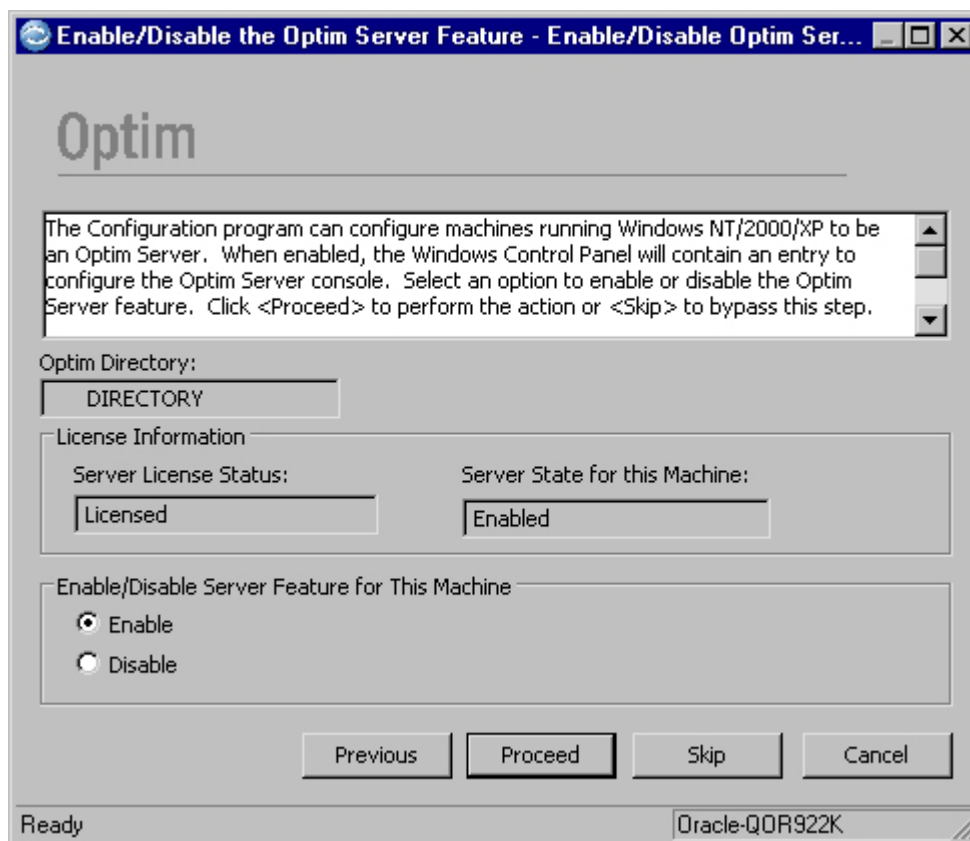
To change the status of a machine to or from that of a Server, select **Enable/Disable this Machine as an Optim Server** from the **Tasks** menu.

Specify Optim Directory

The Configuration program displays the Specify Optim Directory dialog. The option to **Use Existing Optim Directory and Registry Entry** is selected. Specify the name of the Optim Directory you want to use. To select from a list, click the down arrow. To continue, click **Proceed**.

Enable/Disable Optim Server Feature

On the Enable/Disable Optim Server Feature dialog, specify whether to enable or disable the current machine as a Server.



If the site is not licensed for the Server, **Enable** is not available. Refer to Chapter 6, “Configure the Optim Server,” on page 143 for configuration information.

Enable/Disable the ODBC Interface for this Machine

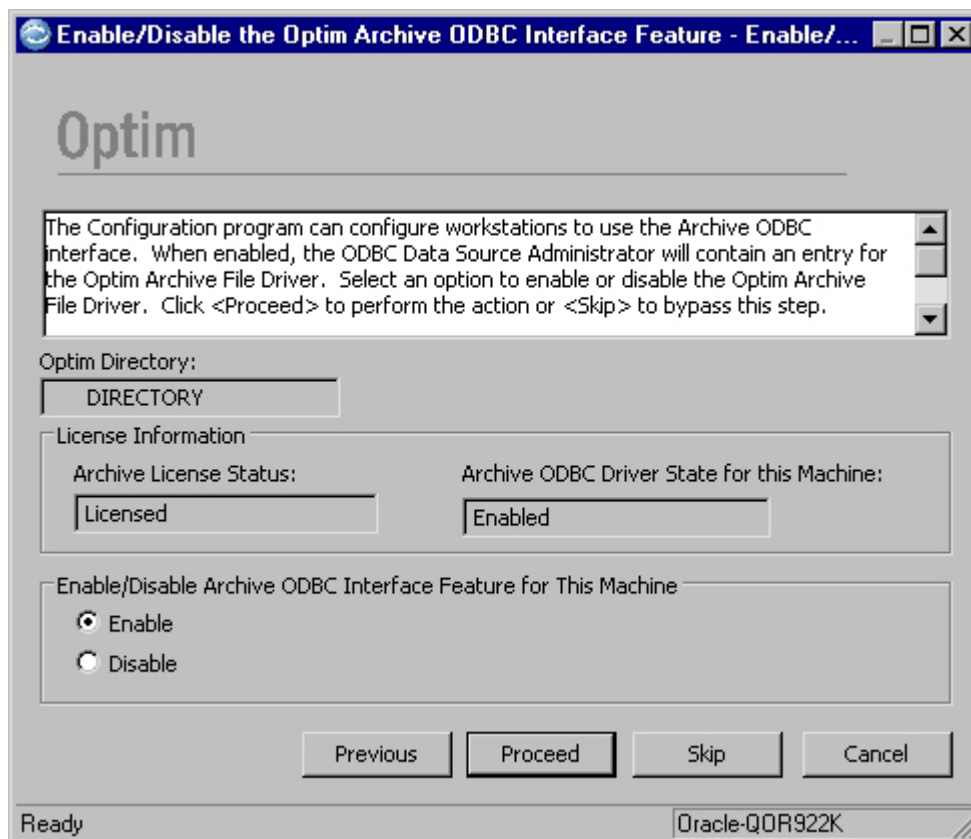
To enable or disable the ODBC interface capability of a machine, select **Enable/Disable the ODBC Interface for this Machine** from the **Tasks** menu.

Specify Optim Directory

The Configuration program displays the Specify Optim Directory dialog. The **Use Existing Optim Directory and Registry Entry** option is selected. Specify the name of the Optim Directory you want to use. Click the down arrow to select from a list. Click **Proceed** to continue.

Enable/Disable the Archive ODBC Interface Feature

On the Enable/Disable the Archive ODBC Interface Feature dialog, specify whether to enable or disable the ODBC driver.



If the site is not licensed for Archive, **Enable** is not available.

Apply Maintenance for Optim Directory Access

At times, it may be necessary to refresh or update the packages, plans, or procedures needed to access the Optim Directory tables. Generally, you apply maintenance for Optim Directory access when installing a new version of Optim. However, if you drop the Optim Directory tables for some reason, you must apply maintenance to recreate the necessary packages, plans, or procedures. To refresh or update the packages, plans, or procedures for the Optim Directory tables, select **Apply Maintenance for Optim Directory Access** from the **Tasks** menu.

Specify Optim Directory

The first step in applying maintenance for Optim Directory access is to provide the name of the Optim Directory. The Configuration program prompts for this information by presenting the Specify Optim Directory dialog (see “Specify Optim Directory” on page 72). You must select **Use Existing Optim Directory and Registry Entry**, select an Optim Directory name, and click **Proceed** to open the next dialog.

Connect to Database

When applying maintenance for Optim Directory access, the Configuration program must connect to the database to create or refresh the packages, plans, or procedures. On the Connect to Database dialog, you must provide the User ID, Password, and Connection String that the workstation needs to connect to the Optim Directory.

Apply Maintenance for Optim Directory Access - Connect to Database

Optim

The Optim Configuration program must connect to the database to apply maintenance to the Optim Directory Tables. The User ID must match the Schema Name of the Optim Directory Tables.

Optim Directory
DIRECTORY

Database Connection Parameters

User ID: optusr3
Connection String: QOR922K
Password:
Optim Directory Schema Name: optusr3

Previous Proceed Undo Cancel

Ready

On this dialog, when you apply maintenance for Optim Directory access, the User ID must match the identifier for Optim Directory tables.

Create/Drop Packages

Before creating or refreshing packages, plans, or procedures for the Optim Directory tables, the Configuration program displays the Create/Drop Packages or Create/Drop Stored Procedures dialog (see “Create/Drop Packages” on page 78), or the Bind/Drop Plans dialog (see “Bind/Drop Plans” on page 79). You can choose to browse the DDL statements generated to create or refresh the packages, plans, or procedures. In addition, if the specified Optim Directory tables are not the ones you want to use, you can cancel the process.

Add Default Tables

After packages, plans, or procedures are created for the Optim Directory, the Configuration program prompts you to add default tables to the Optim Directory. If you select the check box, the Configuration program verifies that default Calendars and Currency tables are in the Optim Directory. If not found, these tables are loaded automatically.

Apply Maintenance to Another?

Before completing the task to Apply Maintenance for Optim Directory Access, the Configuration program prompts you to apply maintenance for access to another Optim Directory. If you select the check box, you can repeat the maintenance process. To end the task, clear the check box and click **Proceed**.

Apply Maintenance for DB Alias Access

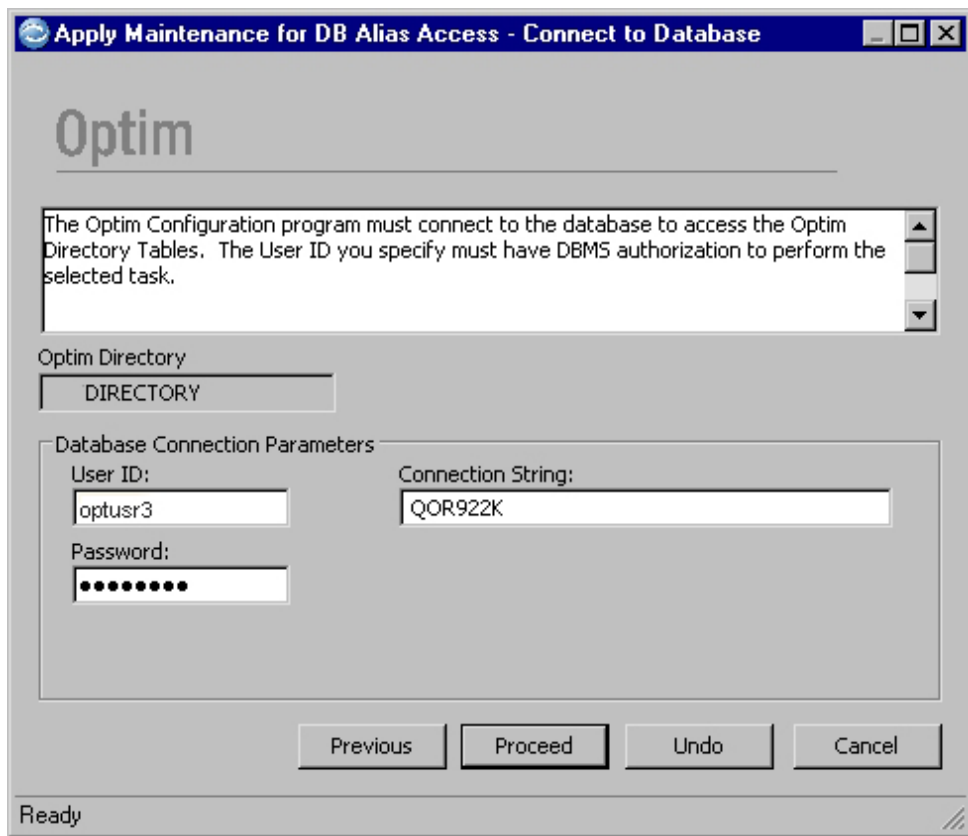
At times, it may be necessary to refresh or update the packages, plans, or procedures needed to access database tables. Generally, you apply maintenance for DB Alias access only when you are installing a new version of Optim or to recreate packages, plans, or procedures. To refresh or update the packages, plans, or procedures for database tables, select **Apply Maintenance for DB Alias Access** from the **Tasks** menu.

Specify Optim Directory

The first step in applying maintenance for DB Alias access is to specify an Optim Directory (see “Specify Optim Directory” on page 170). You must select an Optim Directory name and click **Proceed** to open the next dialog.

Connect to Database

When applying maintenance for DB Alias access, the Configuration program must connect to the database to access Optim Directory Tables.

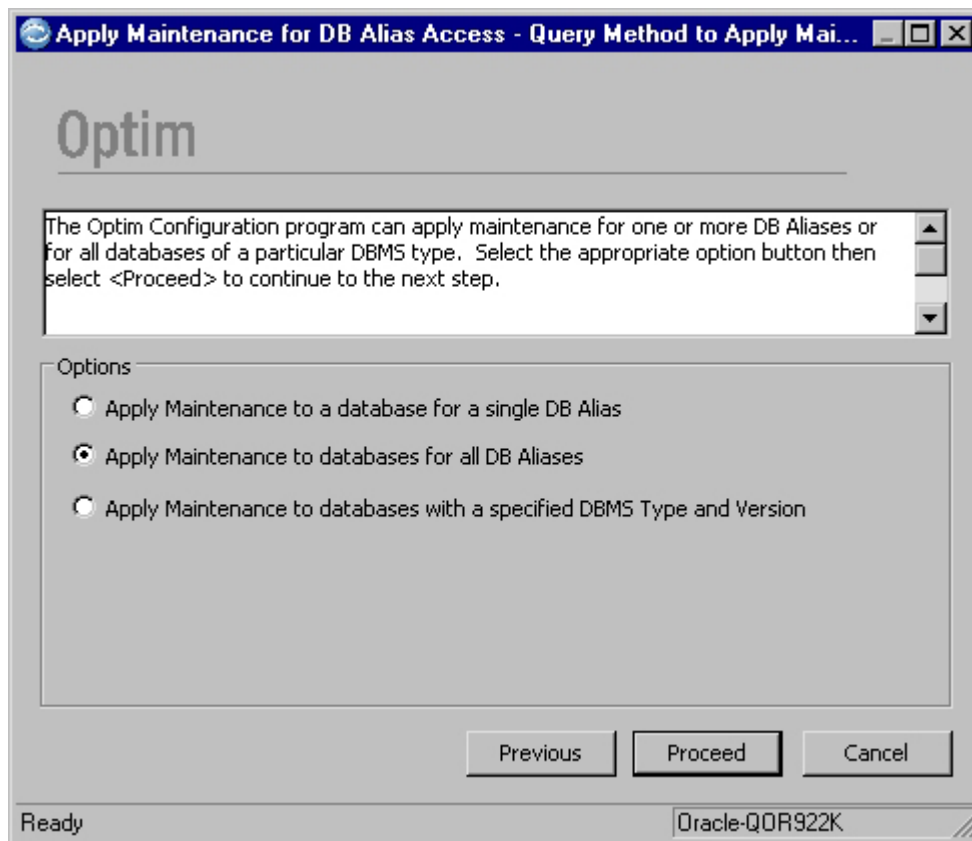


On the Connect to Database dialog, you must specify the User ID, Password, and Connection String that allows the workstation to connect to the database to access Optim Directory tables.

Note: The User ID you specify must have the authorization to perform this maintenance task.

Query Method to Apply Maintenance?

After you specify the Optim Directory and connect to the database, the Configuration program displays the Query Method to Apply Maintenance? dialog. Select the level of maintenance to apply.



To apply maintenance to create or refresh packages, plans, or procedures needed to access database tables, select one of the following options:

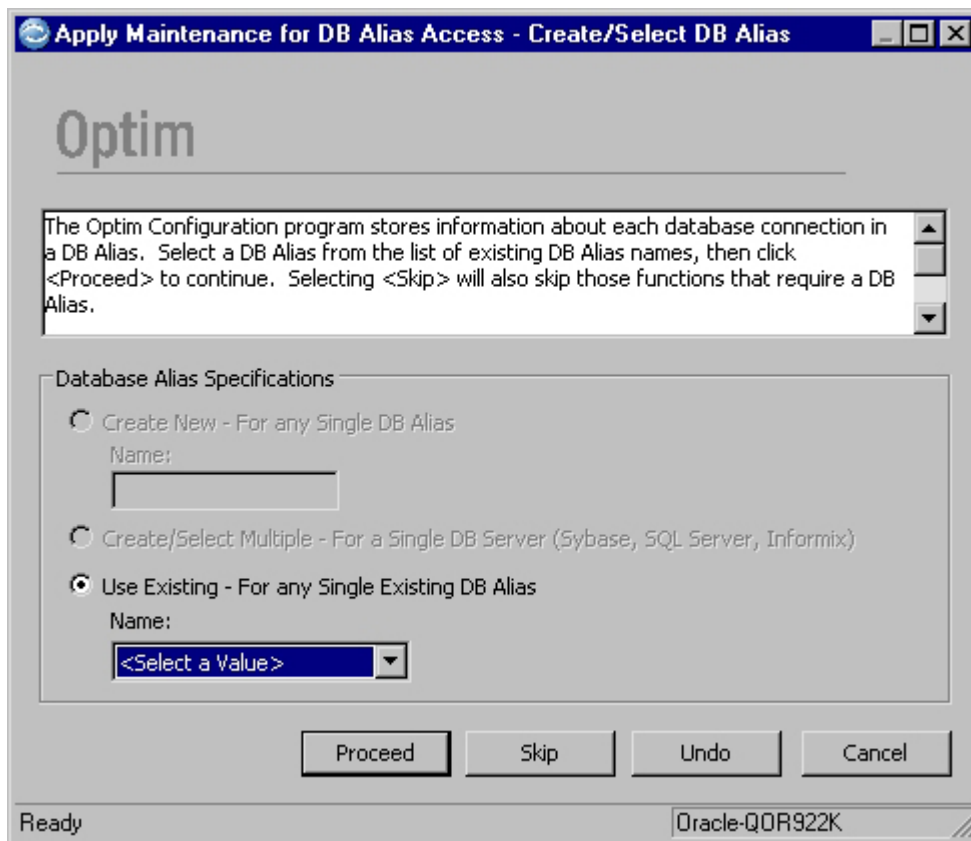
- **Apply Maintenance to a database for a single DB Alias** — Select this option to apply maintenance to a database referenced by a specific DB Alias in the selected Optim Directory.
- **Apply Maintenance to databases for all DB Aliases** — Select this option to apply maintenance to databases referenced by each DB Alias in the selected Optim Directory.
- **Apply Maintenance to databases with a specified DBMS Type and Version** — Select this option to apply maintenance to each database of a particular DBMS Type and version in the selected Optim Directory.

Apply Maintenance for a Single DB Alias

If you select the option on the Query Method to Apply Maintenance? dialog to apply maintenance for a single DB Alias, the task includes the following steps: create/select the DB alias; connect to the database; drop old packages, plans, or procedures; create/refresh packages, plans, or procedures. After maintenance is applied, the task is complete, or you can choose to apply maintenance for another DB Alias.

Create/Select DB Alias

When you select **Apply Maintenance to a database for a single DB Alias**, the Configuration program opens the Create/Select DB Alias dialog allowing you to select the DB Alias for maintenance.



The only available option is to use an existing DB Alias. Specify the name of the DB Alias you want to use. To select from a list, click the down arrow. Click **Proceed** to open the Connect to Database dialog.

Connect to Database

The Configuration program must connect to the database to apply maintenance to the Data Dictionary, Catalog Tables, or System Tables, depending on the DBMS you are using. When the Connect to Database dialog opens, the **User ID**, **Password**, **Connection String**, and **DB Name** are populated with previously entered values.

The User ID you specify must have DBMS authorization to create or refresh database packages, plans, or procedures. You can modify these values, as needed, and click **Proceed** to continue.

Drop Old Packages

The Configuration program displays the Drop Old Packages (Plans, or Procedures) dialog. If you select this option and click **Proceed**, you can drop old packages, plans, or procedures before creating new ones. If you do not select this option, you can create/refresh the appropriate packages, plans, or procedures. The following guidelines apply:

- If you share stored procedures with other users, then any one authorized user can drop old packages (plans or procedures) for all users.
- If your qualifier is not used by anyone else, you can safely drop the old packages (plans or procedures) without affecting other users.

Note: If the same qualifier applies to multiple users, or if you regularly run different builds of Optim, then you may not want to drop the old packages (plans or procedures).

Create/Drop Packages

The Configuration program displays the Create/Drop Packages dialog (see “Create/Drop Packages” on page 78), the Bind/Drop Plans dialog, or the Create/Drop Stored Procedures dialog, as appropriate for the DBMS you are using. This dialog allows you to Create/Refresh the

- Packages to access the Data Dictionary in Oracle.
- Plans to access Catalog Tables in DB2.
- Procedures to access System Tables in Sybase ASE or SQL Server.
- Procedures to access Catalog Tables in Informix.

Apply Maintenance to Another?

After you apply maintenance for a single DB Alias, the Configuration program opens the Apply Maintenance to Another DB Alias? dialog and prompts you to apply maintenance for another DB Alias:

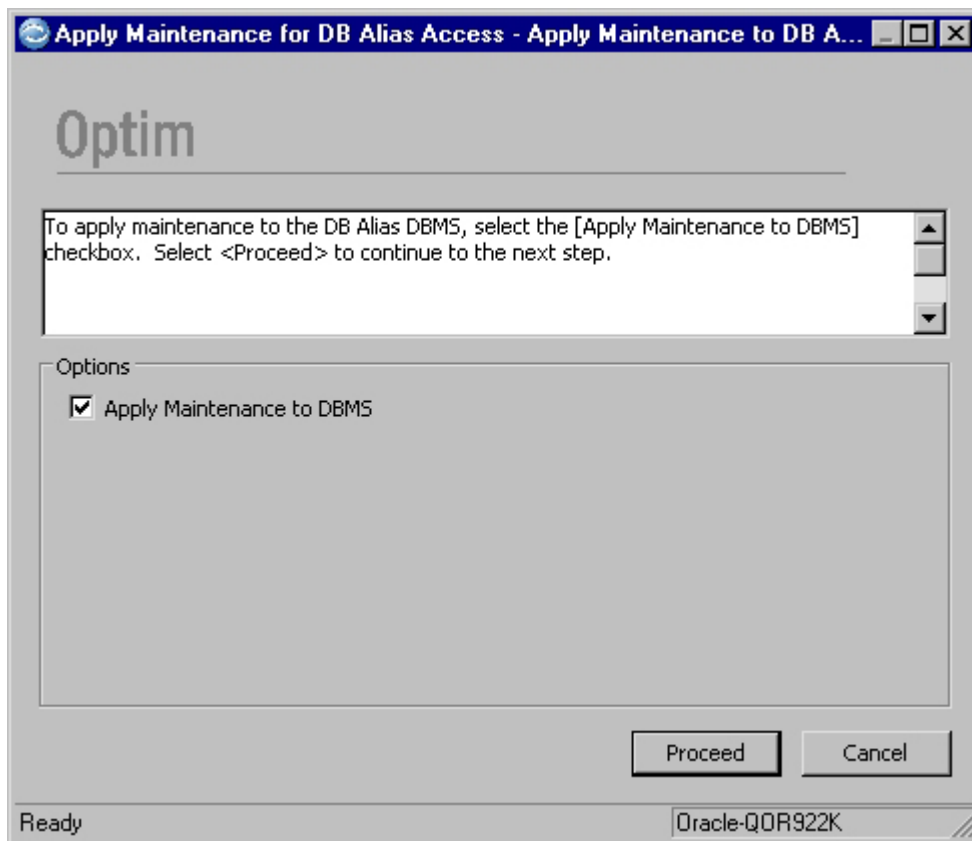
- To apply maintenance for another DB Alias, select the check box and click **Proceed** to open the Create/Select DB Alias dialog.
- To end the task, clear the check box and click **Proceed** to open the Complete dialog.

Apply Maintenance for All DB Aliases

If you select the option on the Query Method to Apply Maintenance dialog to apply maintenance for all DB Aliases, the task includes the following steps: choose to apply maintenance to the first or another DB alias; connect to the database, drop old packages, plans, or procedures; create/refresh packages, plans, or procedures. After maintenance is applied, you can choose to apply maintenance for the next in a series of DB Aliases, or the maintenance task is complete.

Apply Maintenance to DB Alias?

When you select **Apply Maintenance to databases for all DB Aliases**, the Configuration program prompts you to confirm maintenance for each DB Alias in the selected Optim Directory one at a time.



On the Apply Maintenance to DB Alias? dialog, you can do the following:

- To apply maintenance for the named DB Alias, select the check box and click **Proceed** to open the Connect to Database dialog.
- To bypass maintenance for the named DB Alias, clear the check box and click **Proceed**. The Configuration program prompts you to apply maintenance for the next DB Alias.

Note: The steps to connect to the database and create/drop packages, plans or procedures are the same as those described to apply maintenance for a single DB Alias.

Apply Maintenance to Another?

After you apply maintenance for a DB Alias, the Configuration program opens the Apply Maintenance to Another DB Alias? dialog and prompts you to apply maintenance for another DB Alias.

- To apply maintenance for another DB Alias, select the check box and click **Proceed** to open the Connect to Database dialog.
- To end the task, clear the check box and click **Proceed** on each subsequent dialog until the Complete dialog displays.

Apply Maintenance for Specific DBMS

If you select the option on the Query Method to Apply Maintenance dialog, to apply maintenance for a specific DBMS, the task includes the following steps.

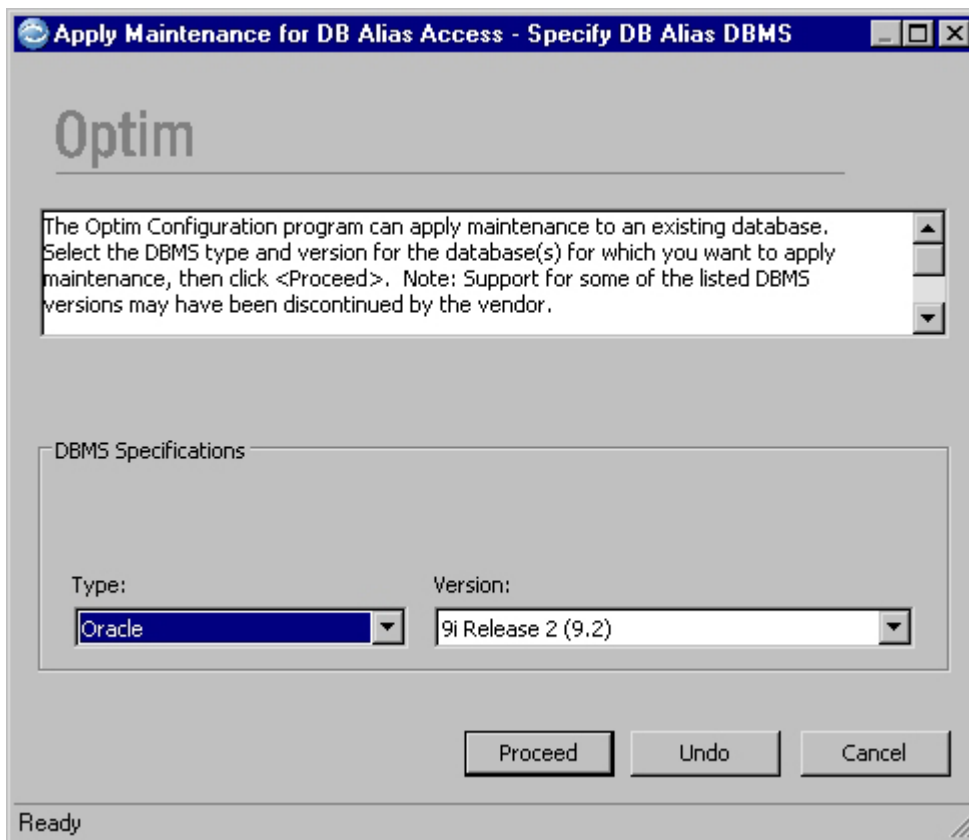
1. Specify the DB Alias DBMS (Type and Version).
2. Choose to apply maintenance for the first or another DB Alias.
3. Connect to the Database.
4. Drop old Packages, Plans, or Procedures.

5. Create/Refresh Packages, Plans, or Procedures.

After maintenance is applied, you can choose to apply maintenance to databases in a different DBMS, or the maintenance task is complete.

Specify DB Alias DBMS

When you select **Apply Maintenance to databases with a specified DBMS Type and Version**, the Configuration program opens the Specify DB Alias DBMS dialog.

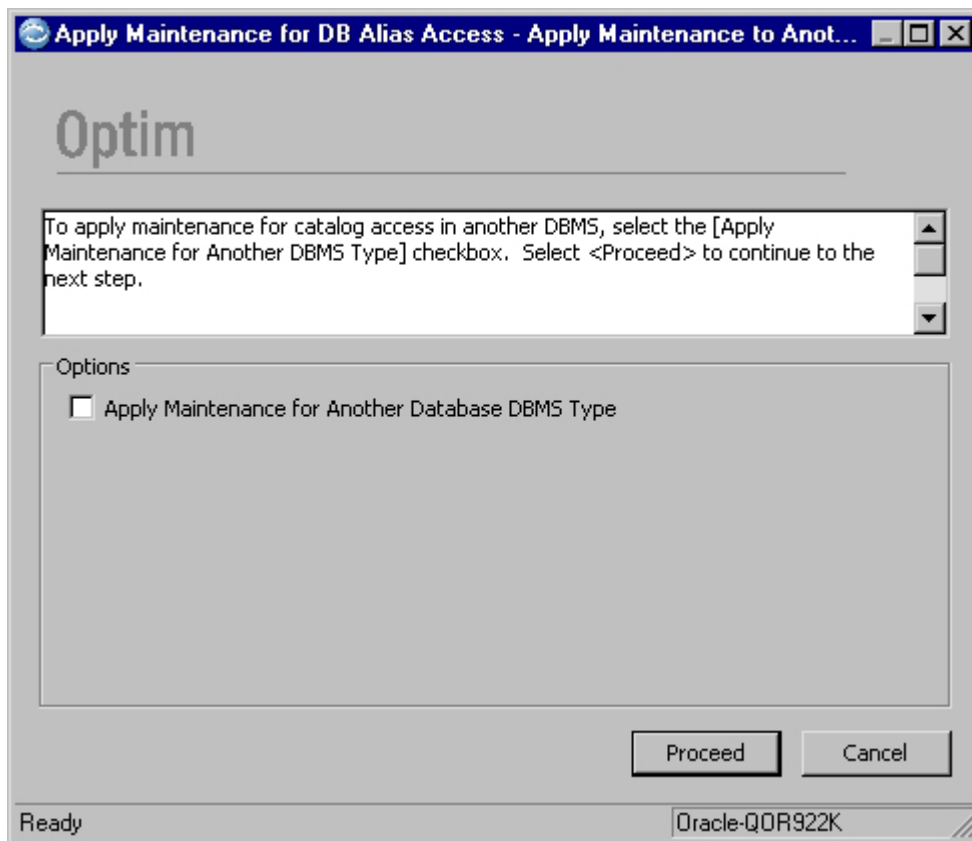


Specify the DBMS **Type** and **Version**, and click **Proceed** to open the Apply Maintenance to DB Alias? dialog. To continue, select the DB Alias, connect to the database, and create/drop packages, plans, or procedures.

Note: The steps are the same as those previously described to apply maintenance for all DB Aliases.

Apply Maintenance to Another DBMS Type?

After you apply maintenance to the database in the selected DBMS, the Configuration program opens the Apply Maintenance to Another DBMS Type? dialog, and prompts you to confirm maintenance for a different database DBMS.



On this dialog, you can do the following:

- To apply maintenance for another DBMS, select the check box and click **Proceed** to open the Specify DB Alias DBMS dialog.
- To end the task, clear the check box and click **Proceed** on each subsequent dialog until the Complete dialog displays.

Rename an Optim Directory

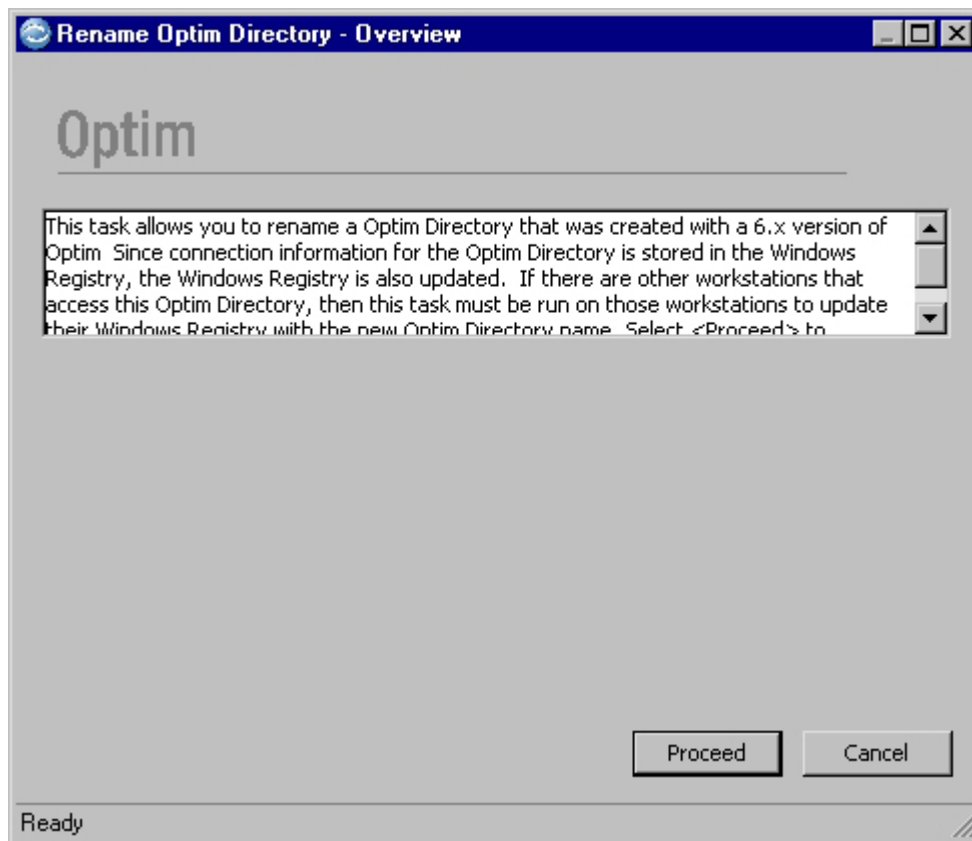
At times, you may rename an Optim Directory. For example, upgrading from version 5.x to version 6.x requires that you create a new Directory and convert Optim objects created before the upgrade. Once the new Directory is created and the old Directory is deleted, you can rename the new Directory to use it in place of the old Directory.

To learn how to convert Optim objects created before the upgrade to version 6.x, refer to Appendix G, “Converting PST and Optim Directory Objects,” on page 485. To delete a Directory, see “Drop DB Alias or Optim Tables” on page 211.

To rename the new Directory, you must replace the name in the Directory itself and in the Windows registry on each workstation that accesses the Directory. Select **Rename an Optim Directory** from the **Tasks** menu to change the name in the Optim Directory and workstation registry or, once the Optim Directory is changed, to rename a registry entry or register the renamed Directory on a workstation.

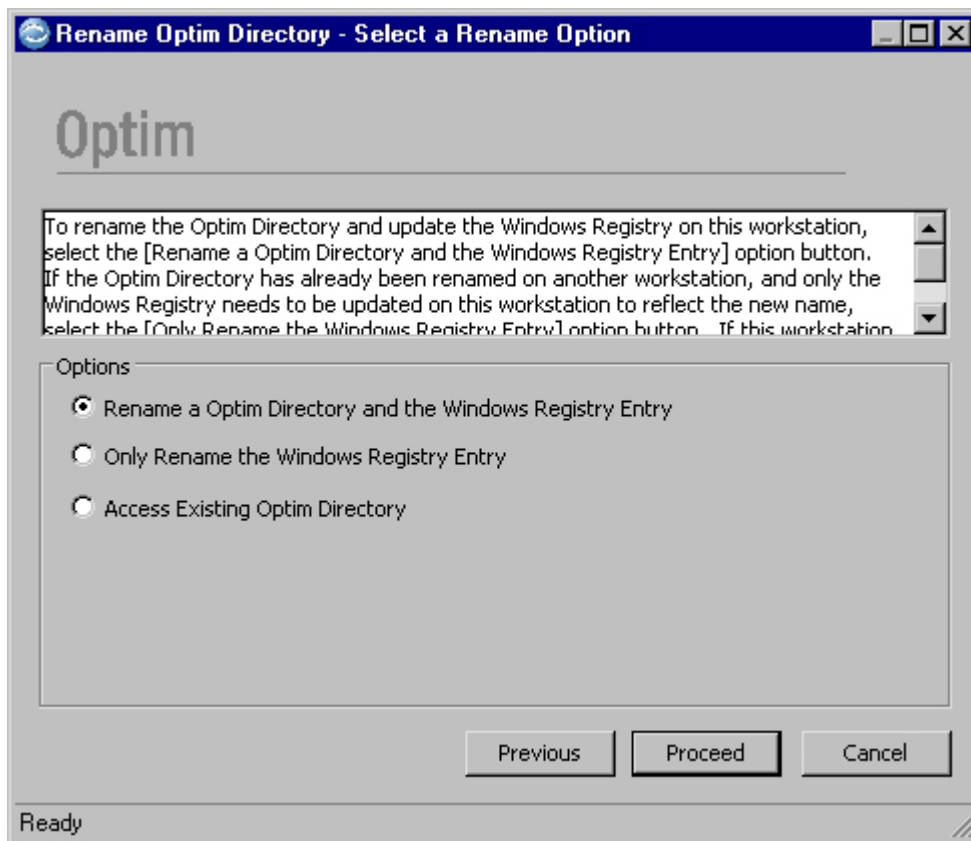
Overview

When you select **Rename an Optim Directory** from the **Tasks** menu, the Overview dialog provides an overview of the task. To continue, click **Proceed**.



Select a Rename Option

The first step in renaming an Optim Directory is to select a rename option. You do this on the Select a Rename Option dialog.



On the Select a Rename Option dialog, select one of the following options:

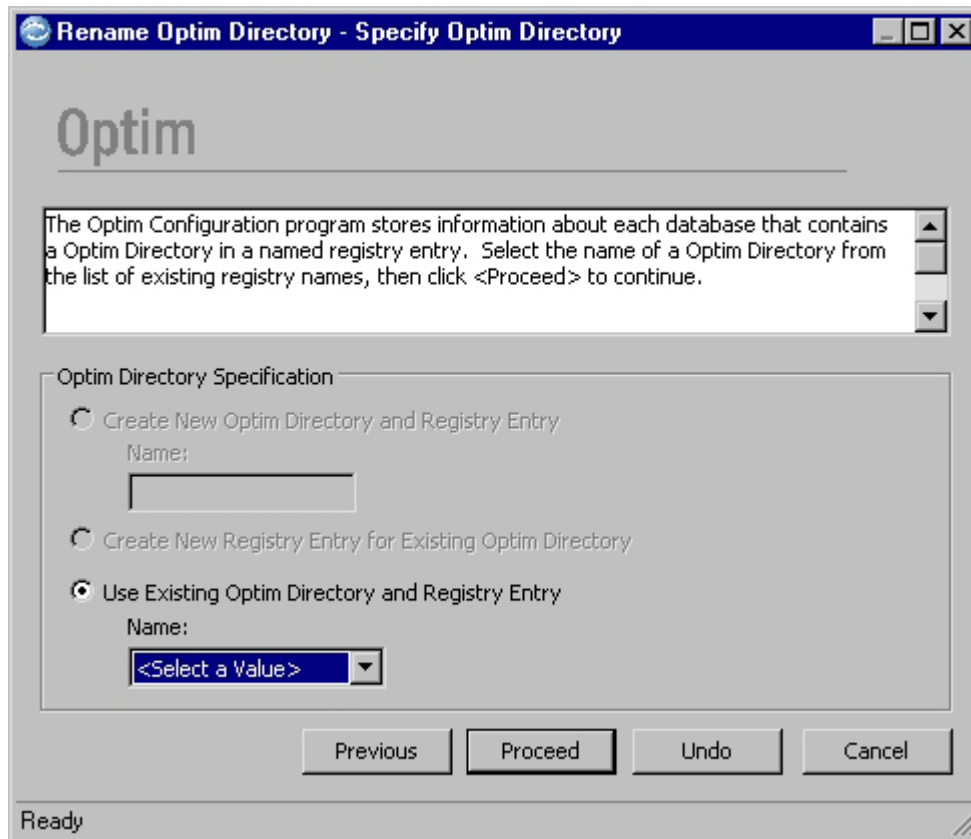
- **Rename an Optim Directory and the Windows Registry Entry** — Select this option to rename an Optim Directory in the Directory tables and the Windows registry on the workstation. To rename a Directory, this option needs to be performed only once.
- **Only Rename the Windows Registry Entry** — Select this option to rename the Optim Directory in the Windows registry on the workstation. Use this option on each workstation that uses a renamed Directory.
- **Access Existing Optim Directory** — Select this option to register an Optim Directory in the Windows registry on the workstation. This option allows you to perform the Access Existing Optim Directory task (see “Access Existing Optim Directory” on page 173).

Rename an Optim Directory and the Windows Registry Entry

This option allows you to rename an Optim Directory in the Directory tables and the Windows registry on the workstation. To rename a Directory, this option needs to be performed only once.

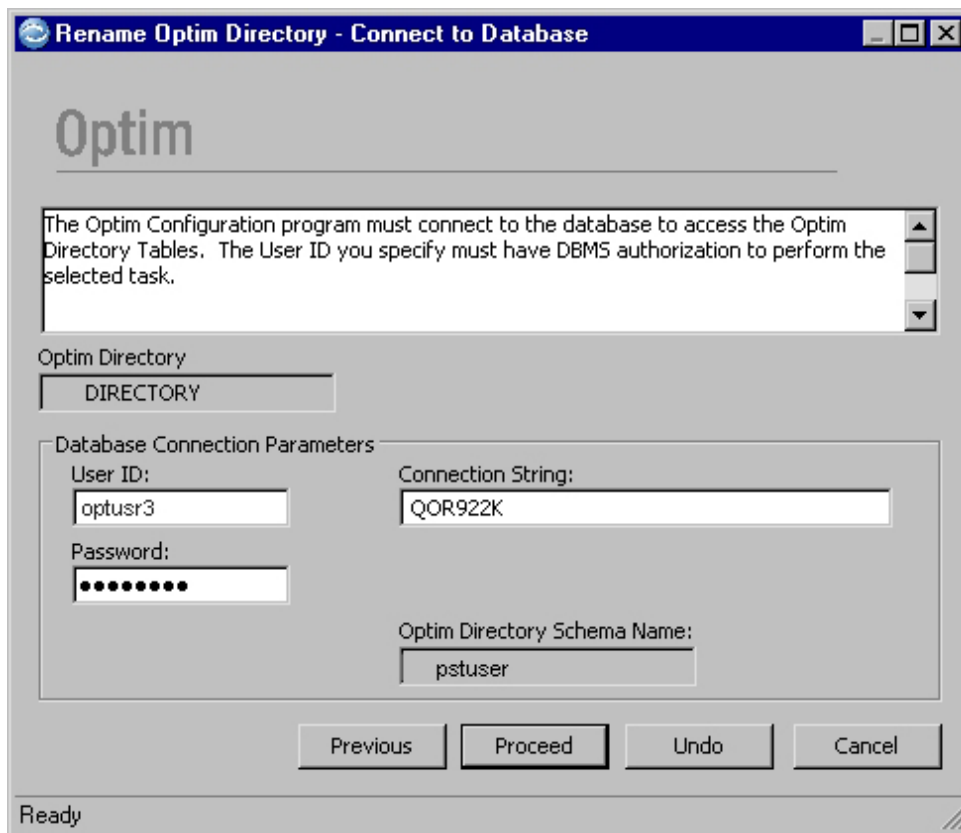
Specify Optim Directory

After selecting the option to rename an Optim Directory, the Specify Optim Directory dialog is displayed. The option to **Use Existing Optim Directory and Registry Entry** is selected. Specify the **Name** of the Directory you want to rename. To select from a list, click the down arrow.



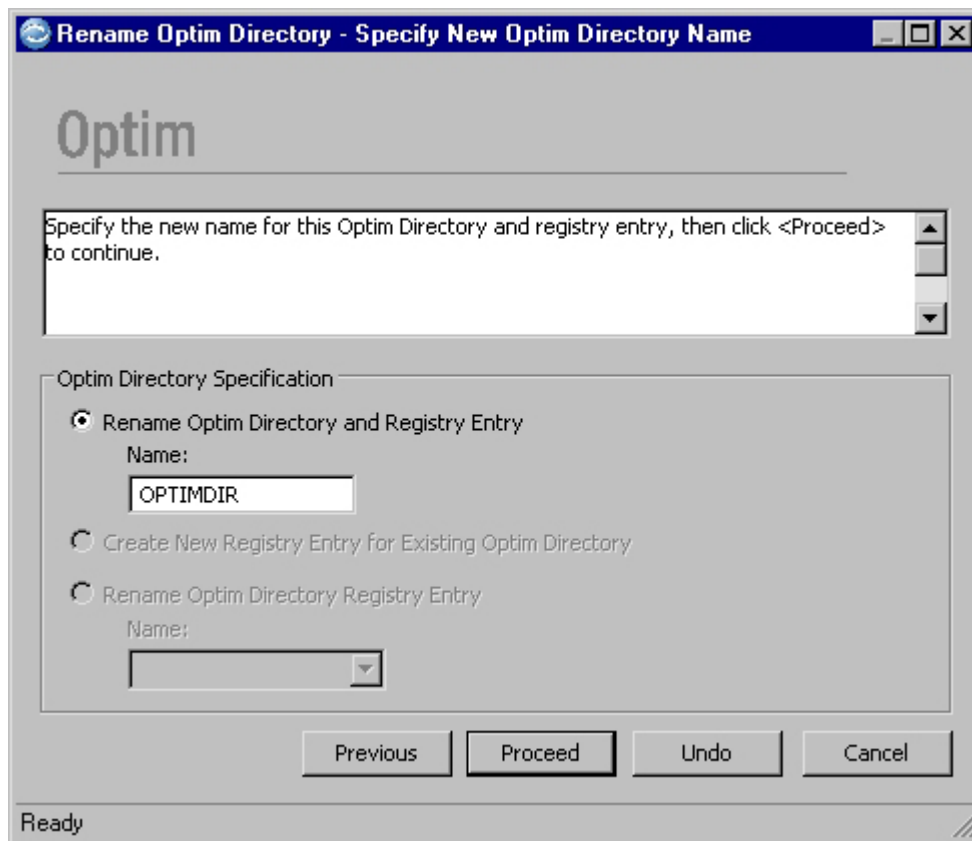
Connect to Database

When renaming an Optim Directory, the Configuration program must connect to the database and verify the user has authorization to perform the task. On the Connect to Database dialog, you must specify the **User ID**, **Password**, and **Connection String** that the workstation needs to connect to the Directory.



Specify New Optim Directory Name

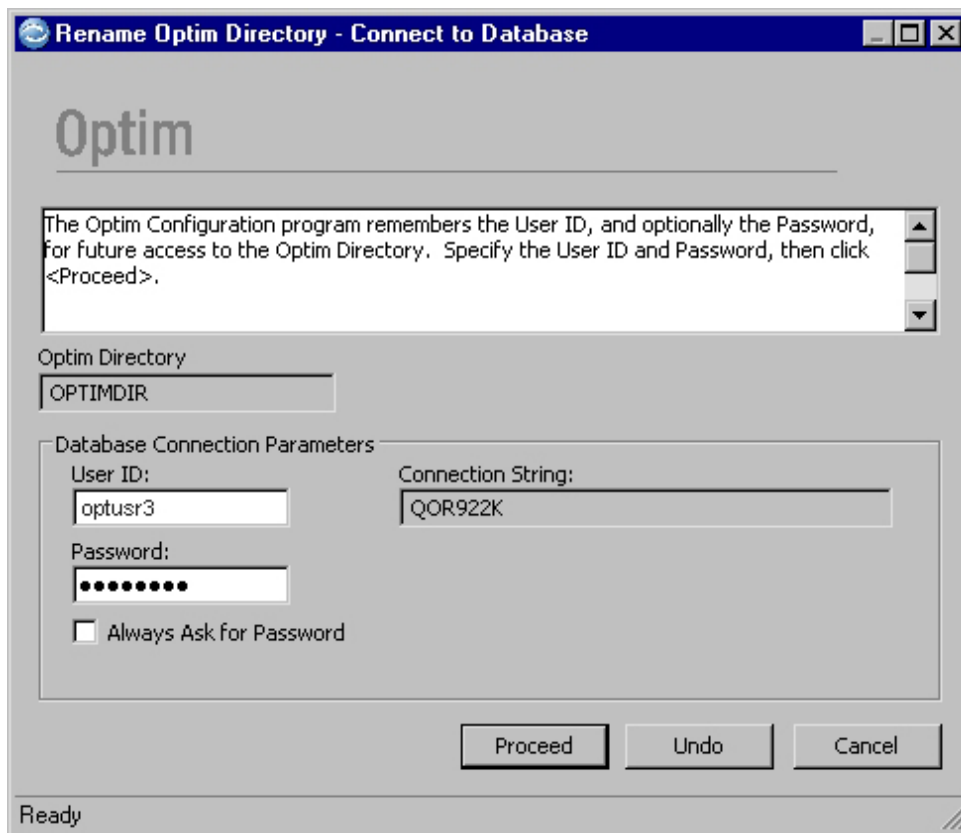
After connecting to the database, the Specify New Optim Directory Name dialog is displayed, allowing you to rename the Optim Directory and the registry entry.



The option to **Rename Optim Directory and Registry Entry** is selected. Specify the new **Name** for the Optim Directory. A Directory name can be from 1 to 12 characters and have no embedded blanks. The new Directory name cannot match an existing Directory name.

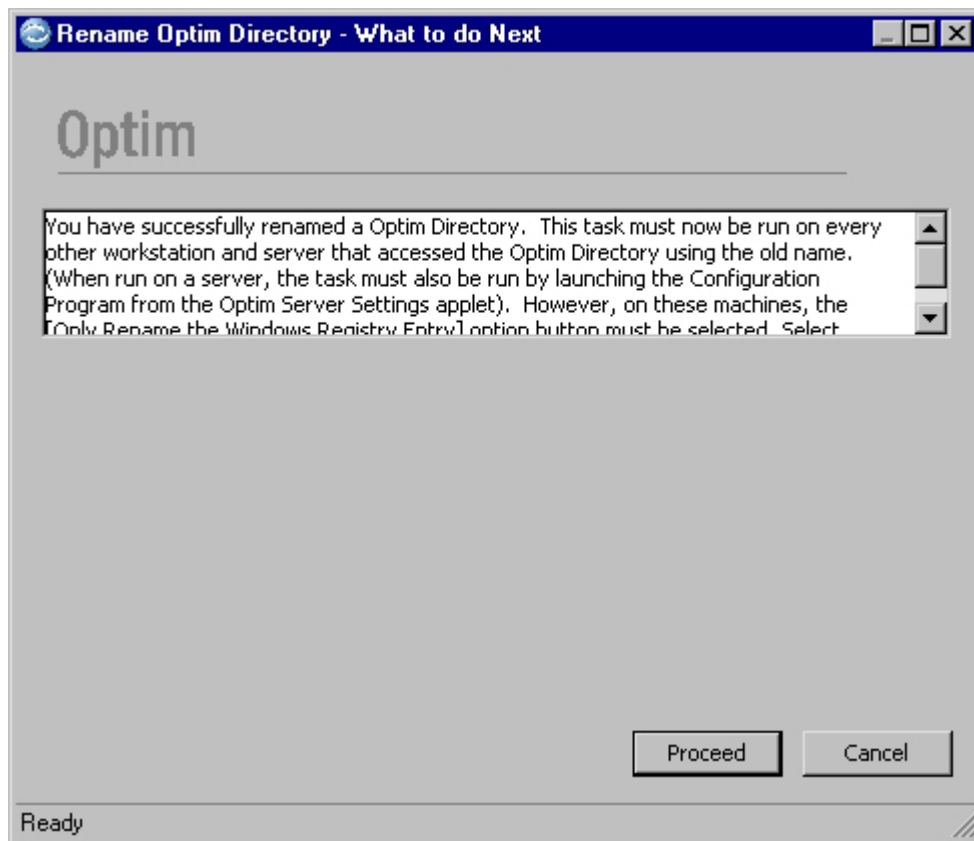
Connect to Database

After an Optim Directory is renamed, the Configuration program updates connection information in the registry entry. For subsequent access to the Directory from this workstation, use the Connect to Database dialog to specify a **User ID** and **Password** (see “Connect to Database Dialog” on page 85). Click **Proceed** to display the Complete dialog and complete the process.



What to do Next

After connection information is updated in the registry, the What to do Next dialog instructs you to use the **Only Rename the Windows Registry Entry** option to update the registry for each workstation that accesses the Optim Directory. Click **Proceed** to display the Complete dialog and complete the process.

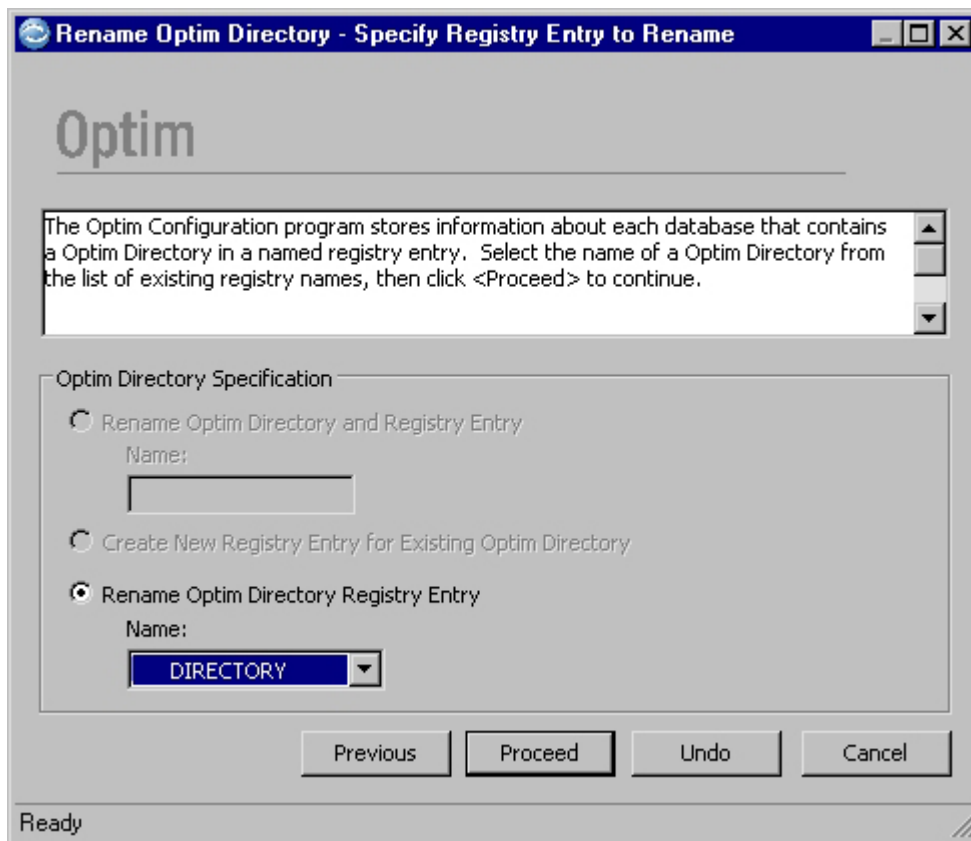


Only Rename the Windows Registry Entry

This option allows you to rename the Optim Directory in the Windows registry on the workstation. Use this option on each workstation that uses a renamed Directory.

Specify Registry Entry to Rename

After selecting the option to rename a registry entry, the Specify Registry Entry to Rename dialog is displayed. The option to **Rename Optim Directory Registry Entry** is selected. Specify the **Name** of the Optim Directory you want to rename in the registry. To select from a list, click the down arrow.



Connect to Database

When renaming an Optim Directory registry entry, the Configuration program must connect to the database and verify the user has authorization to perform the task. On the Connect to Database dialog, you must specify the **User ID**, **Password**, and **Connection String** that the workstation needs to connect to the Directory.

Confirm the Optim Directory Name

After connecting to the database, a pop-up dialog displays the new Optim Directory name. Click **Yes** to confirm the new name and rename the registry entry. Click **No** to terminate the process.

Connect to Database

After an Optim Directory registry entry is renamed, the Configuration program updates connection information in the registry entry. For subsequent access to the Directory from this workstation, use the Connect to Database dialog to specify a **User ID** and **Password** (see “Connect to Database” on page 75). Click **Proceed** to display the Complete dialog and complete the process.

Update DBMS Version for an Optim Directory

When you select **Update the DBMS Version for an Optim Directory** from the **Tasks** menu, the first dialog cautions that you should select this task *only* when the Optim Directory resides in a database that has been upgraded to a new version. This task prompts you to:

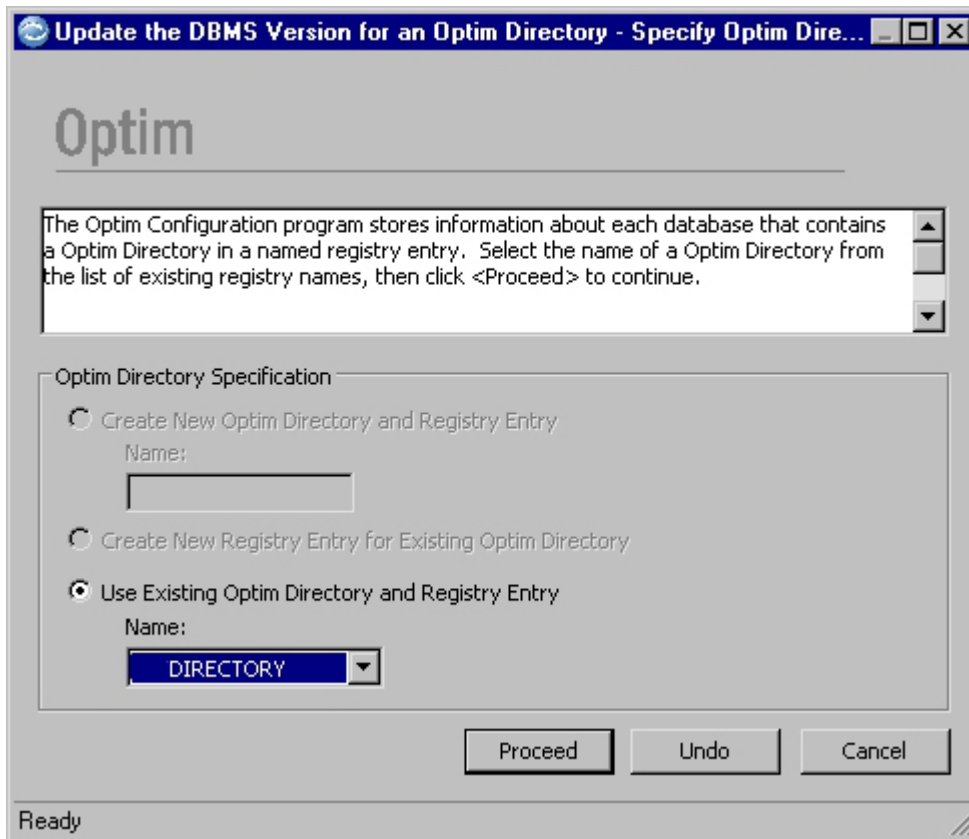
Tasks to update DBMS version for an Optim Directory

1. Select the Optim Directory to update and select the new DBMS version.
2. Drop the old packages, plans, or procedures and create new ones for the Optim Directory.
3. Update the database signature for the Optim Directory.

When the process completes, the database signature is updated automatically.

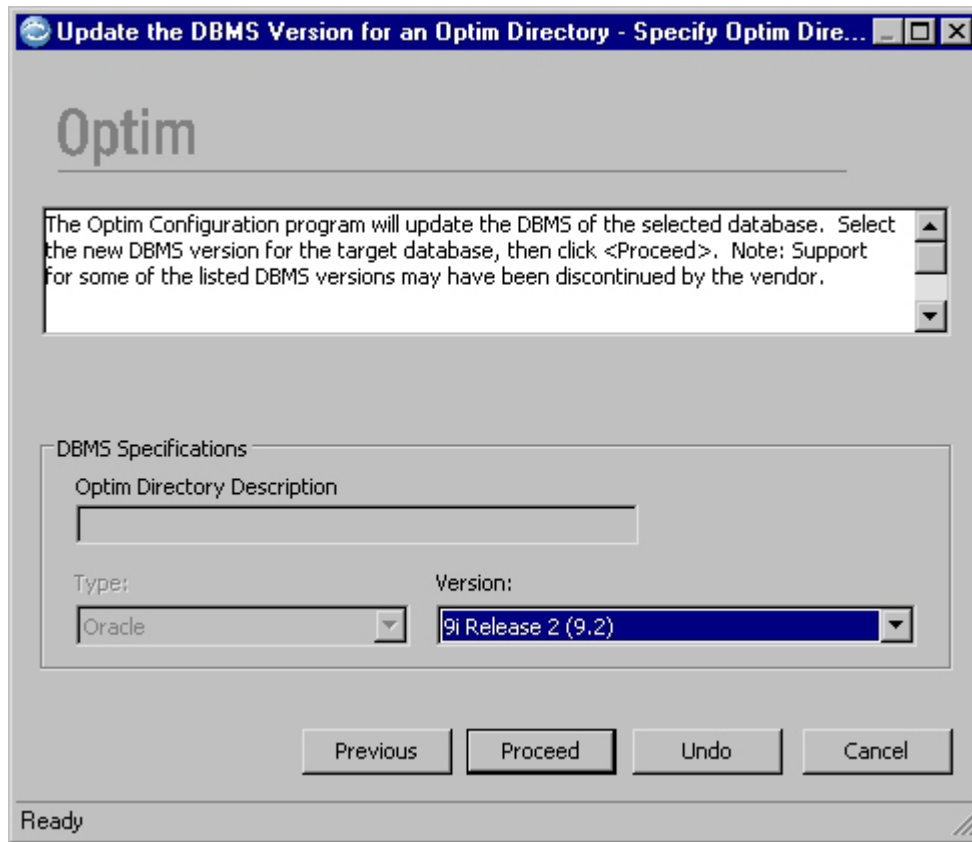
Specify Optim Directory

The first step in updating the DBMS version for an Optim Directory is to specify the name of the Directory. Click the down arrow to select from a list and click **Proceed**.



Specify Optim Directory DBMS

You must specify the version of the DBMS you want to use to update the Optim Directory.



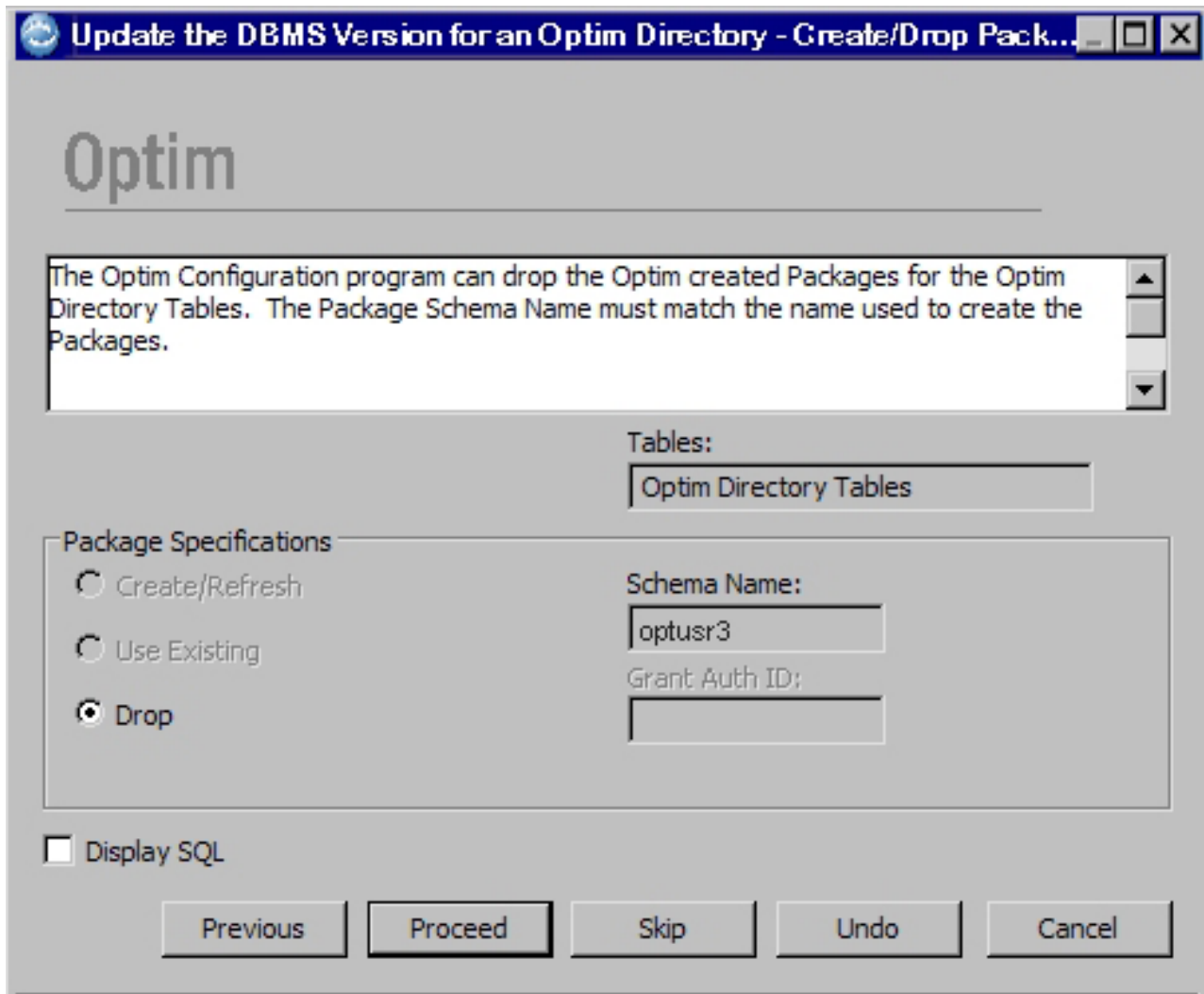
Click the down arrow to select a version. The version you select must be different from the current version. If not, an error message displays. Click **Proceed** to connect to the database.

Connect to Database

When you update information for the Optim Directory, the Configuration program must connect to the database to access the Optim Directory Tables. On the Connect to Database dialog (see “Connect to Database” on page 183), you must specify the **User ID**, **Password**, and **Connection String** that allows the workstation to connect to the database. If the connection is successful, the next step is to drop the old packages, plans, or procedures and create new ones for the updated DBMS.

Create/Drop Packages

The **Configuration** program displays the Create/Drop Packages dialog, the Create/Drop Stored Procedures dialog, or the Bind/Drop Plans dialog, as appropriate for the DBMS you are using.



The **Drop** option is selected when this dialog opens. You can select the **Display SQL** check box to browse the DDL statements generated for the drop process. To continue, click **Proceed**.

Note: The Configuration program attempts to drop all old packages, plans, and procedures for the specified DBMS version, even if they were never installed.

After the Drop process completes, this dialog displays again with the **Create/Refresh** option selected automatically. Click **Proceed** to create packages, plans, or procedures to update the DBMS for the Optim Directory.

When the process completes, the database signature is updated automatically and the Complete dialog displays.

Update DBMS Version for a DB Alias

When you select **Update DBMS Version for a DB Alias** from the **Tasks** menu, the first dialog cautions that you should select this task *only* when a DB Alias refers to a database that has been upgraded to a new version. This task prompts you to perform the following steps.

1. Select the Optim Directory containing the DB Alias.
2. Select the DB Alias and select the new DBMS version.

- Drop the old packages, plans, or procedures and create new ones for the Optim Directory.

When this process completes, the database signature is updated automatically.

Update DBMS for a Single DB Alias

You can update the DBMS version for a single DB alias; however, if you are using Sybase ASE, SQL Server, or Informix and you have multiple databases on one server, the Configuration program automatically directs you to the appropriate dialogs. The initial steps are the same whether you are updating the DBMS version for one DB Alias or multiple DB Aliases.

Specify Optim Directory

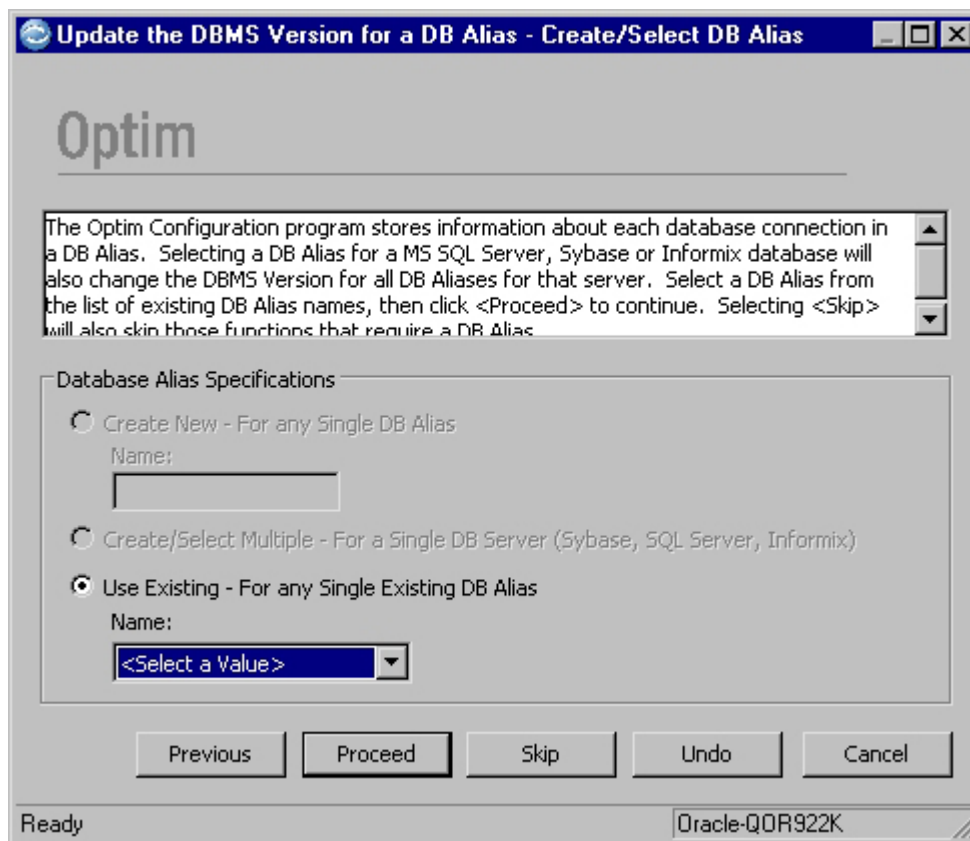
The first step in updating the DBMS version for a DB Alias is to specify the name of the Optim Directory associated with that DB Alias. Click the down arrow to select an Optim Directory from a list and click **Proceed** to connect to the database.

Connect to Database

The Configuration program must connect to the database to access the Optim Directory Tables. On the Connect to Database dialog (see “Connect to Database” on page 183), you must specify the **User ID**, **Password**, and **Connection String** that allows the workstation to connect to the database. If the connection is successful, you can create or select a DB Alias.

Create/Select DB Alias

The next step is to select the DB Alias to update the corresponding DBMS version.

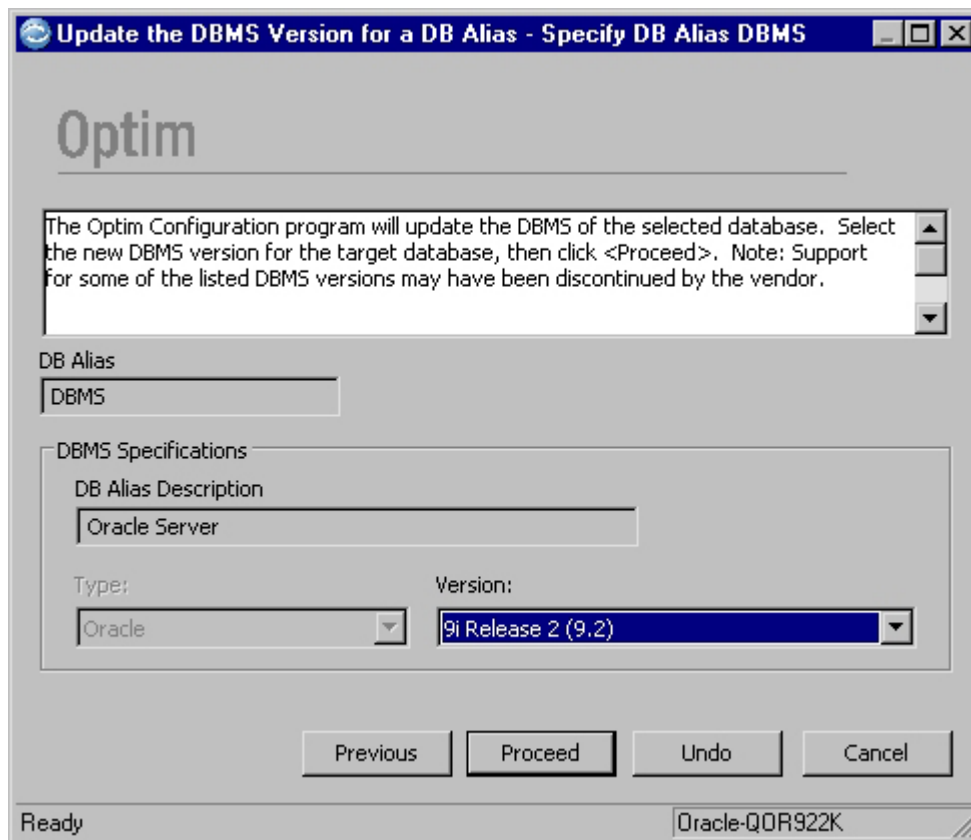


Click the down arrow to select a DB Alias from the list of existing DB Alias names, then click **Proceed** to continue.

Note: If you are using SQL Server, Sybase ASE, or Informix, and have several databases on one server, the Configuration program automatically selects every DB Alias that resides on the same server.

Specify DB Alias DBMS

You must specify the DBMS version to use for the selected DB Alias.



Click the down arrow to select a version from the list. The version you select must be different from the current version. If not, an error message displays. To continue, click **Proceed**.

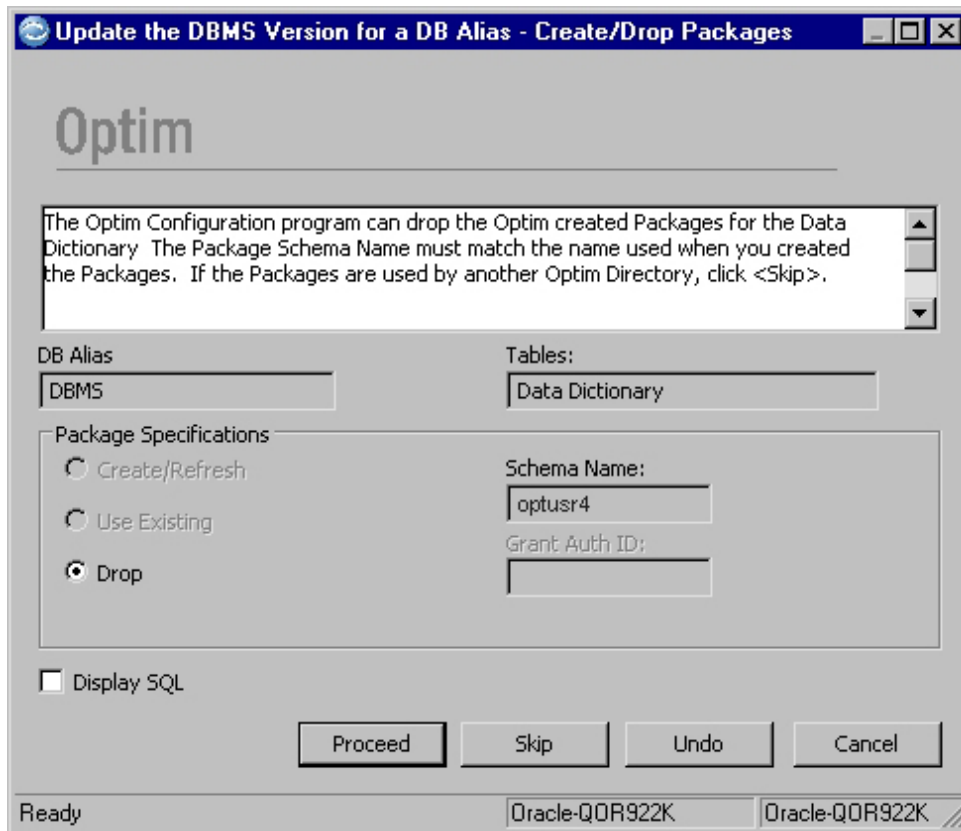
Connect to Database

If you are updating the DBMS version for only one DB Alias, the Connect to Database dialog opens. You specify the **User ID**, **Password**, and **Connection String** needed to connect to the selected database.

Note: If you are updating the DBMS version for Sybase ASE, SQL Server, or Informix, and you have several databases on one server, refer to “Update Multiple DB Aliases” on page 204 for complete details.

Create/Drop Packages

The Configuration program displays the Create/Drop Packages dialog, the Create/Drop Stored Procedures dialog, or the Bind/Drop Plans dialog, as appropriate for the DBMS you are using.



The **Drop** option is selected when this dialog opens. You can select the **Display SQL** check box to browse the DDL statements generated for the process. To continue, click **OK**.

After the Drop process completes, this dialog displays again with the **Create/Refresh** option selected automatically. Click **Proceed** to create the following:

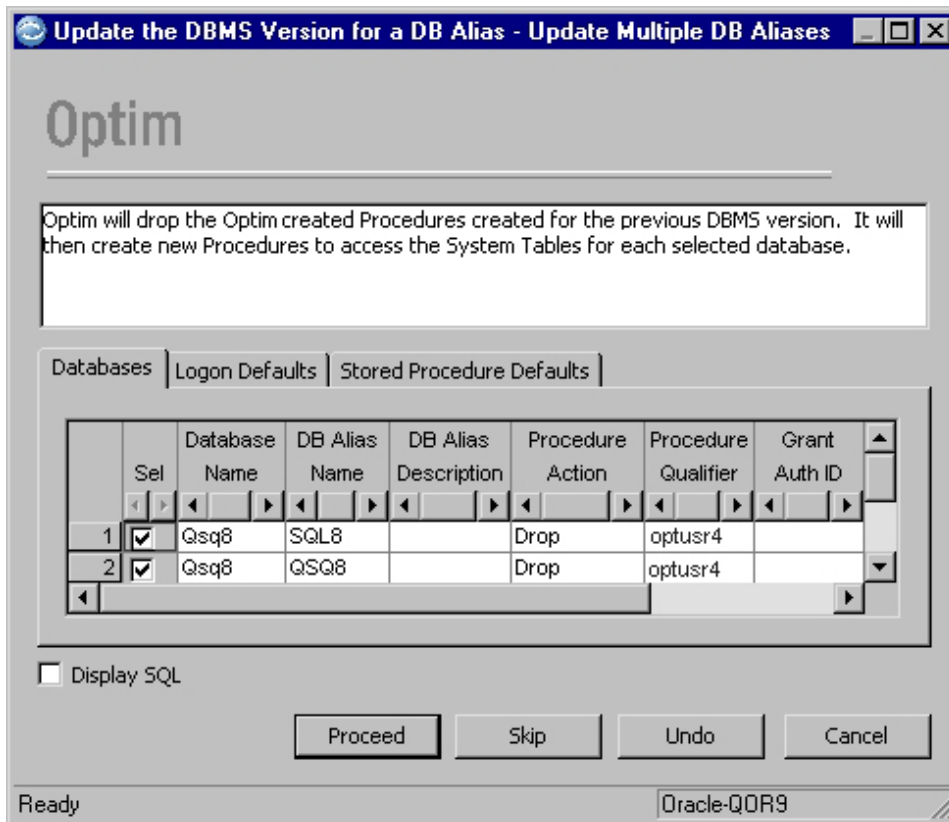
- Packages to access the Data Dictionary in Oracle.
- Plans to access Catalog Tables in DB2.
- Procedures to access System Tables in Sybase ASE or SQL Server.
- Procedures to access Catalog Tables in Informix.

When the process completes, the database signature is updated automatically and the Complete dialog displays.

Update Multiple DB Aliases

If you are updating the DBMS version for Sybase ASE, SQL Server, or Informix, you may have several databases on one server. The procedure to update the DBMS for multiple DB Aliases is similar to the procedure for updating the DBMS for a single DB Alias.

After you select the DB Alias and specify the new DBMS version, the Configuration program automatically displays the following dialog showing all the DB Aliases that reside on a particular server.



The Update Multiple DB Aliases dialog displays the following tabs:

Databases

Review a list of all databases that reside on the single server. Specify explicit information for each DB Alias you want to update.

Logon Defaults

Specify the default **User ID** and **Password** needed to create/refresh stored procedures while configuring the first or additional workstations. In some cases, this logon may have additional privileges than the Saved Logon Defaults.

Stored Procedure Defaults

Specify the default procedure **Qualifier** and **Grant Auth ID** required to create/refresh stored procedures.

Note: The default values apply to all DB Aliases, unless otherwise specified on the **Databases** tab.

Databases Tab

Use the **Databases** tab to review a list of all databases that reside on the single server. You can also specify explicit details for the DB Aliases you want to update:

Sel Select a check box to update a DB Alias for a particular database. If you do not want to update a DB Alias, clear the check box. This grid column is locked in position, so you can scroll to the left or right and still see the selected databases.

Database Name

Name assigned to the database when it was created.

DB Alias Description

Text that describes or explains the purpose of the DB Alias.

Procedure Qualifier

Enter a high-level qualifier for stored procedures. If blank, the entry on the **Stored Procedure Defaults** tab is used.

Procedure Action

Select options to create/refresh procedures or use existing procedures. To select an option, click in the grid cell and click the down arrow.

Grant Auth ID

Enter an identifier for authorized users to maintain stored procedures. Specify a User ID, Group Name, or "Public". If blank, the entry on the **Stored Procedure Defaults** tab is used.

Logon User ID

Specify an identifier (up to 30 characters) required to logon to the DB Alias to create/refresh stored procedures. If blank, the entry on the **Logon Defaults** tab is used.

Logon Password

Enter a password (up to 30 characters) required to logon to the DB Alias to create/refresh stored procedures. If blank, the entry on the **Logon Defaults** tab is used.

Display SQL

Select this check box to display SQL statements before dropping or creating stored procedures.

Logon Defaults Tab

Use the **Logon Defaults** tab to specify the **User ID** and **Password** needed to create/refresh stored procedures.

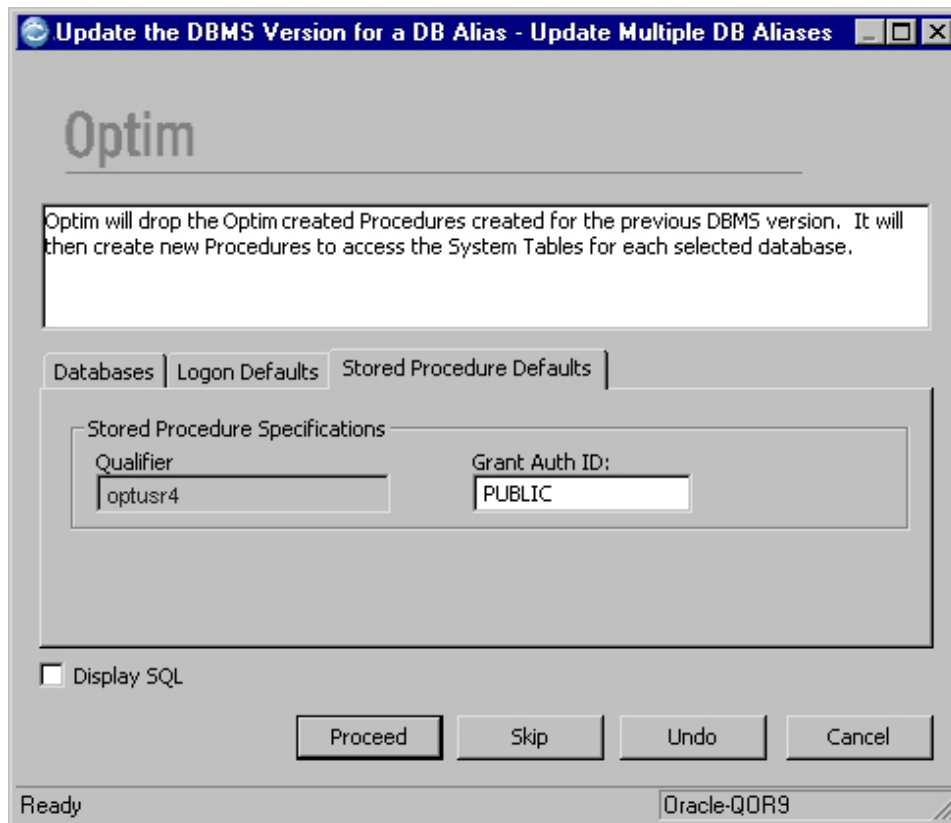
The screenshot shows a Windows-style dialog box titled "Update the DBMS Version for a DB Alias - Update Multiple DB Aliases". The dialog has a tabbed interface with three tabs: "Databases", "Logon Defaults" (which is selected), and "Stored Procedure Defaults". The "Logon Defaults" tab contains a section titled "Logon Specifications" with the following fields: "User ID:" with the text "optusr4", "Password:" with masked text "*****", and "Verify Password:" with masked text "*****". Below these fields is a checkbox labeled "Display SQL" which is currently unchecked. At the bottom of the dialog are four buttons: "Proceed", "Skip", "Undo", and "Cancel". The status bar at the very bottom shows "Ready" on the left and "Oracle-QOR9" on the right.

The entries on the **Logon Defaults** tab allow you to connect to the database while configuring workstations. Enter your password twice; the second time is for verification.

Note: The default logon information applies to all DB Aliases unless you provide explicit logon information on the **Databases** tab.

Stored Procedure Defaults

Use the stored procedure **Defaults** tab to specify the procedure **Qualifier** and **Grant Auth ID** required to drop and create stored procedures.



Note: The stored procedure defaults apply to all DB Aliases unless you provide explicit stored procedure information on the **Databases** tab.

When you specify the necessary information on each tab and click **Proceed**, the Configuration program connects to the first selected database. If the connection is successful, the update process drops the old stored packages, plans, or procedures, creates new ones, and updates the database signature. These steps are repeated for each selected database. When the process is complete, the Complete dialog displays.

Configure Options

The Product Configuration File contains the Product Options that apply to all users of Optim at a site. Personal Options are recorded in the workstation registry. Typically, the Product Configuration File and the Personal Options registry entries are created when you configure the first and additional workstations. However, you modify these options by selecting **Configure Options** from the **Tasks** menu.

Specify Optim Directory

Use the Specify Optim Directory dialog (see "Specify Optim Directory" on page 170) to select the name of the Optim Directory. Click **Proceed** to open the next dialog in the process.

Connect to Database

You can specify different Personal Options for each database. Therefore, the Configuration program may prompt you to connect to the database before proceeding. The Connect to Database dialog prompts for the **User ID**, **Password**, and **Connection String** needed to connect to the database for which Personal Options are specified.

Initialize Security

If Optim Security for the Optim Directory is not initialized, the Initialize Security dialog is displayed. Use this dialog to assign a Security Administrator and initialize Optim Security for the Directory. For more information about this dialog and initializing Optim Security, see “Optim Security” on page 120.

Change Security Administrator

If Optim Security for the Optim Directory is initialized, the Change Security Administrator dialog is displayed. Use this dialog to change the Security Administrator for the Directory. For more information about this dialog, see “Initialize Security or Change Security Administrator” on page 174.

Enable/Disable Optim Server Feature

On the Enable/Disable the Optim Server Feature dialog, specify whether to enable or disable the current machine as a Server. If the site is not licensed for the Server, **Enable** is not available.

Enable Disable Archive ODBC Feature

On the Enable/Disable the Archive ODBC Feature dialog, specify whether to enable or disable the ODBC driver. If the site is not licensed for Archive, **Enable** is not available.

Specify Configuration File

In order to create the Product Configuration File, you must provide the fully qualified name of the file. The Specify Product Configuration File dialog prompts for this information. Refer to “Configure Options” on page 124 for additional information.

Create Primary Keys

If you add tables to a database, you may use the Configuration program to create Optim Primary Keys for tables that do not have DBMS primary keys, but do have unique indexes. When you create Optim Primary Keys, you must specify the Optim Directory and the DB Alias for the database where the tables reside.

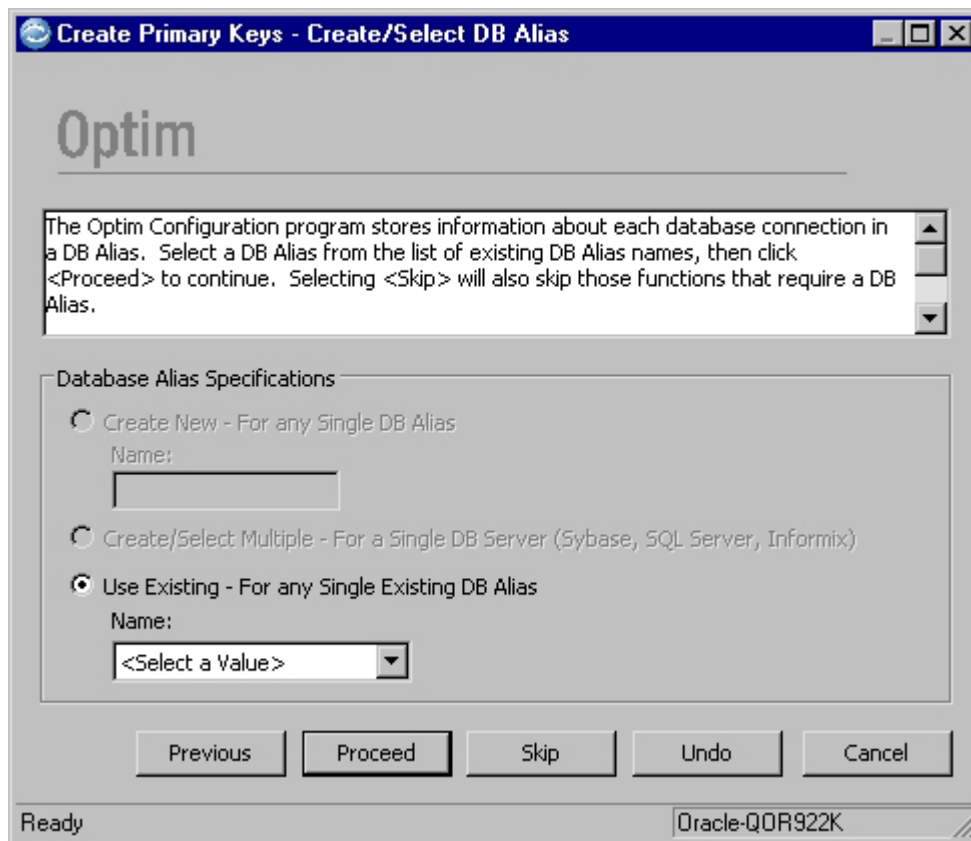
Optim Primary Keys are usually created when you configure the first workstation or when you create a DB Alias. After you install Optim, you can create these primary keys by selecting **Create Primary Keys** from the **Tasks** menu, or by selecting **Configuration Assistant** from the **Help** menu.

Specify Optim Directory

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory. Click **Proceed** to open the next dialog in the process.

Create/Select DB Alias

Use the Create/Select DB Alias dialog to specify the DB Alias for the database where you want to create Primary Keys.



Create Primary Keys

The Create Primary Keys and Select Primary Keys dialogs allow you to create the Optim Primary Keys. Refer to “Create Primary Keys” on page 102.

Create Primary Keys for Another?

After you create the Optim Primary Keys for tables accessed using a particular DB Alias, the Configuration program prompts you to create Primary Keys for tables accessed using a different DB Alias. To continue, click **Proceed**.

- If you select **Create Primary Keys for another DB Alias**, the Create/Select DB Alias dialog opens to repeat the sequence.
- If you clear **Create Primary Keys for another DB Alias**, the Configuration program completes the Create Primary Keys process and returns to the main window.

Create Copies of DB2 z/OS Relationships

To facilitate use of Optim with DB2 z/OS tables, copy the DB2 relationships into the Optim Directory to reduce the run time when accessing DB2 tables. The Configuration program provides an option to copy these relationships to the Optim Directory. You can start this process by selecting **Create Copies of DB2 MVS Relationships** from the **Tasks** menu, or by selecting the **Configuration Assistant** from the **Help** menu.

Specify Optim Directory

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory. Click **Proceed** to open the next dialog in the process.

Create/Select DB Alias

Use the Create/Select DB Alias dialog (see “Create/Select DB Alias” on page 185) to specify the DB Alias for the DB2 z/OS database where the relationships are to be copied. Click **Proceed** to open the next dialog.

Not a DB2 for MVS Database

If you select a DB Alias for a database that is not a DB2 z/OS database, the Configuration program displays the Not a DB2 for MVS Database dialog. This dialog prompts you to return to the Create/Select DB Alias dialog, using **Previous**, to select another DB Alias. To continue, click **Proceed**.

Create Copies of DB2 MVS Relationships?

If you select a DB Alias for a DB2 z/OS database, the Configuration program prompts you to confirm that relationships are to be copied, using the Create Copies of DB2 MVS Relationships? dialog. Select the check box and click **Proceed** to copy the relationships to the Optim Directory.

Create Copies for Another?

After the DB2 z/OS relationships are copied to the Optim Directory, the Configuration program prompts you to copy relationships for another DB Alias. If so, the Create/Select DB Alias dialog opens, allowing you to choose another DB Alias. If not, the process completes.

Load/Drop Sample Data

Sample tables are distributed with Optim. Generally, you load this sample data when you configure the first workstation, however, you can load it independently or when you configure an additional workstation.

You can load, refresh, or drop sample data by selecting the **Load/Drop Sample Data** option, which guides you through the process. You can start this process by selecting **Load/Drop Sample Data** from the **Tasks** menu, or by selecting the **Configuration Assistant** from the **Help** menu.

Specify Optim Directory

A DB Alias is required to access the sample tables. The DB Alias, used as a high-level qualifier for the table names, provides a single-name association for parameters needed to connect to the database. The DB Alias and other Optim objects, created when the sample tables are created, are stored in an Optim Directory.

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory. Click **Proceed** to open the next dialog.

Create/Select DB Alias

Use the Create/Select DB Alias dialog (see “Create/Select DB Alias” on page 185) to specify the DB Alias for the sample tables. Click **Proceed** to open the next dialog.

Load/Drop Sample Tables

After you select the DB Alias for the sample tables, the Configuration program opens the Load/Drop Sample Tables dialog. If you are creating or refreshing the tables, you must specify an identifier (**Creator ID**, **Schema Name**, or **Owner ID**) and **Tablespace**. If you are dropping sample tables, only the identifier is required. Refer to “Load/Drop Sample Tables” on page 104.

Load/Drop Sample Data for Another DB Alias

After you load or drop sample tables associated with a particular DB Alias, the Configuration program displays the Load/Drop Sample Data for Another DB Alias dialog and prompts you to load or drop sample tables associated with a different DB Alias. If so, the Create/Select DB Alias dialog opens to restart the process. Otherwise, the process completes and returns to the main window.

Load/Drop Data Privacy Data

Data privacy data tables are available to clients who have an Optim Data Privacy License. These tables allow you to mask company and personal data — such as employee names, customer names, social security numbers, credit card numbers, and email addresses — to generate transformed data that is both valid and unique. Generally, these data privacy tables are loaded when you configure the first workstation, but you also can load them independently or when you configure an additional workstation.

You can load, refresh, or drop data privacy data by selecting the **Load/Drop Data Privacy Data** option, which guides you through the process. You can start this process by selecting **Load/Drop Data Privacy Data** from the **Tasks** menu, or by selecting the **Configuration Assistant** from the **Help** menu.

Specify Optim Directory

A DB Alias is required to access the data privacy tables. The DB Alias, used as a high-level qualifier for the table names, provides a single-name association for parameters needed to connect to the database. The DB Alias and other Optim objects, created when the data privacy tables are created, are stored in an Optim Directory.

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory. Click **Proceed** to open the next dialog.

Create/Select DB Alias

Use the Create/Select DB Alias dialog (see “Create/Select DB Alias” on page 185) to specify the DB Alias for the data privacy tables. Click **Proceed** to open the next dialog.

Load/Drop Data Privacy Tables

After you select the DB Alias for the data privacy tables, the Configuration program opens the Load/Drop Data Privacy Tables dialog. If you are creating or refreshing the tables, you must specify an identifier (**Creator ID**, **Schema Name**, or **Owner ID**) and **Tablespace**. If you are dropping data privacy tables, only the identifier is required. Refer to “Load/Drop Data Privacy Tables” on page 107.

Load/Drop Data Privacy Data for Another DB Alias

After you load or drop sample data privacy tables associated with a particular DB Alias, the Configuration program displays the Load/Drop Data Privacy Data for Another DB Alias dialog and prompts you to load or drop the data privacy tables associated with a different DB Alias. If so, the Create/Select DB Alias dialog opens to restart the process. Otherwise, the process completes and returns to the main window.

Drop DB Alias or Optim Tables

At times it may be necessary to drop a DB Alias or an Optim Directory. Use **Drop DB Alias or Optim Tables** to guide you in performing one or both tasks.

The following guidelines apply.

- When you drop a DB Alias, Optim can no longer access data in that database, and any Optim objects that refer to the DB Alias are invalid. However, you can recreate the DB Alias and restore access to the database and Optim objects.
- When you drop an Optim Directory, the DB Aliases and other Optim objects stored in the Directory cannot be recovered.

Specify Optim Directory

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory that stores the DB Alias you want to drop or to specify the Optim Directory you want to drop. Click **Proceed** to open the next dialog.

Connect to Database

Optim must connect to the database to drop the Optim Directory tables and packages, plans, or procedures. Use the Connect to Database dialog (see “Connect to Database” on page 183) to specify the connection information.

Create/Select DB Alias

Use the Create/Select DB Alias dialog (see “Create/Select DB Alias” on page 185) to specify a DB Alias you want to drop. Click **Proceed** to drop the DB Alias, or click **Skip** to open the Drop Optim Directory? dialog, which you can use to drop the specified Optim Directory, including all DB Aliases and other objects stored in it.

Load/Drop Sample Tables

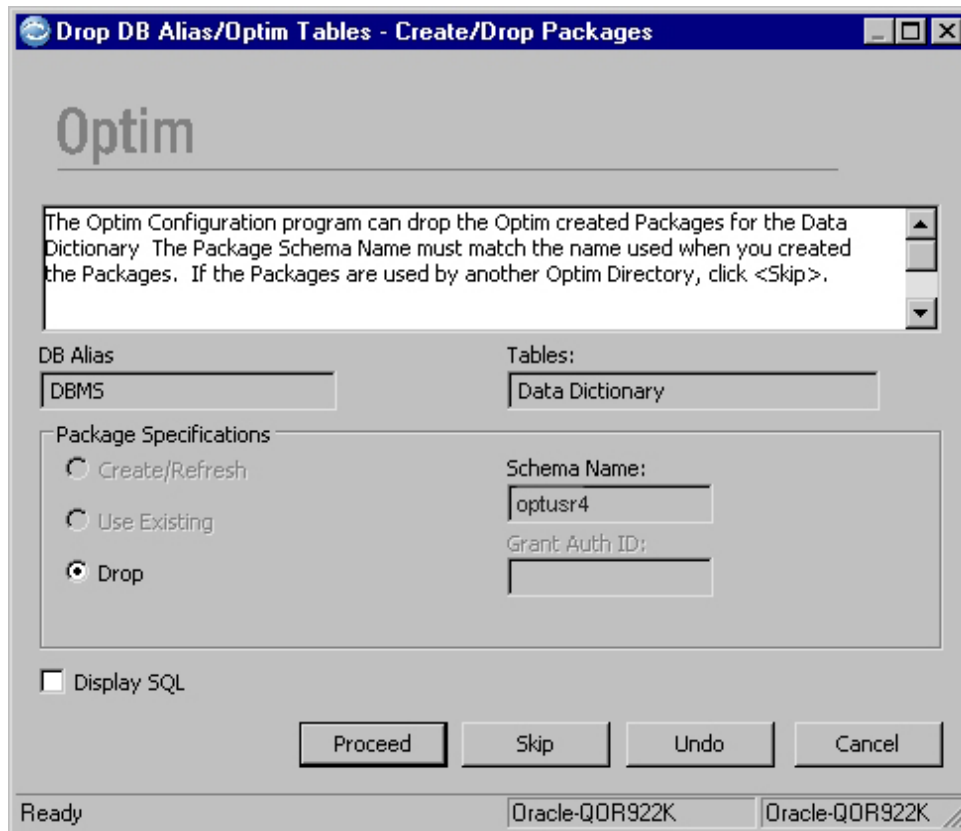
The Load/Drop Sample Tables dialog prompts you to specify the identifier (**Creator ID**, **Schema Name**, or **Owner ID**) for the sample tables to be dropped. Refer to “Load/Drop Sample Tables” on page 104.

Load/Drop Data Privacy Tables

If you have an Optim Data Privacy License, the Load/Drop Data Privacy Tables dialog prompts you to specify the identifier (**Creator ID**, **Schema Name**, or **Owner ID**) for the data privacy tables to be dropped. Refer to “Load/Drop Data Privacy Tables” on page 107.

Drop Packages

Before dropping packages, plans, or procedures used to access the database, the Configuration program displays the Create/Drop Packages, Bind/Drop Plans, or Create/Drop Stored Procedures dialog, as appropriate.



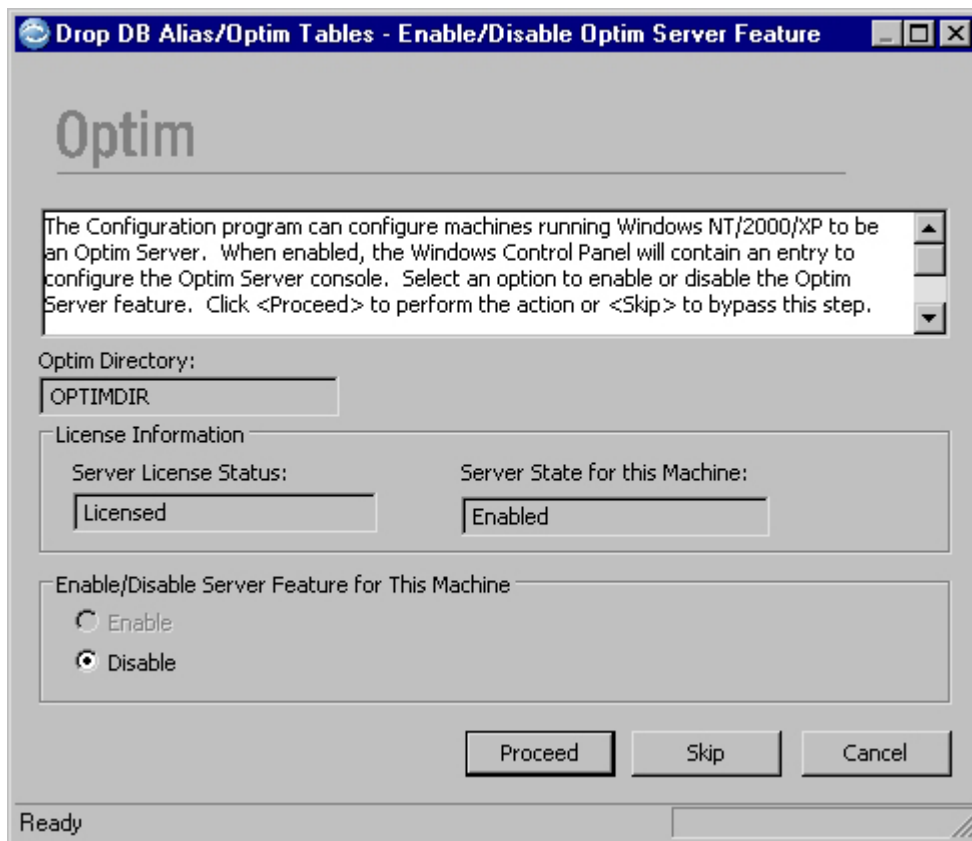
To retain the packages, plans, or procedures, click **Skip**. To browse the DDL used to drop the packages, plans, or procedures, select **Display SQL** and click **Proceed**.

Drop Another DB Alias?

After you drop the DB Alias, the Configuration program opens the Drop Another DB Alias? dialog. Select the check box to open the Create/Select DB Alias dialog and restart the process for another DB Alias.

Disable the Optim Server Feature

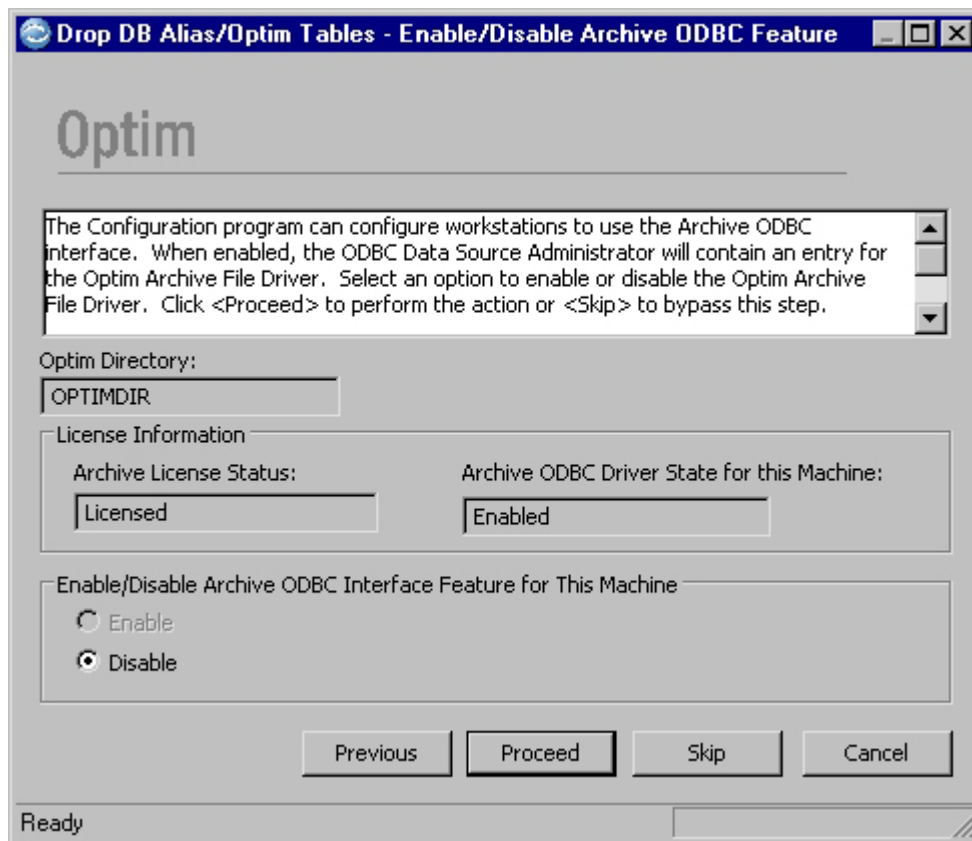
The Configuration program opens the Enable/Disable Optim Server Feature dialog next, to allow you to disable the Server feature.



Click **Proceed** to disable the Server feature, or click **Skip** to advance to the next step without disabling the Server feature. If the site is not licensed for the Server, this dialog is not displayed.

Disable the Archive ODBC Feature

The Configuration program opens the Enable/Disable Archive ODBC Feature dialog next. This dialog allows you to disable the Archive ODBC interface feature.



Click **Proceed** to disable the Archive ODBC feature, or click **Skip** to advance to the next step without disabling the Archive ODBC feature. If the site is not licensed for Archive, this dialog is not displayed.

Drop the Optim Directory?

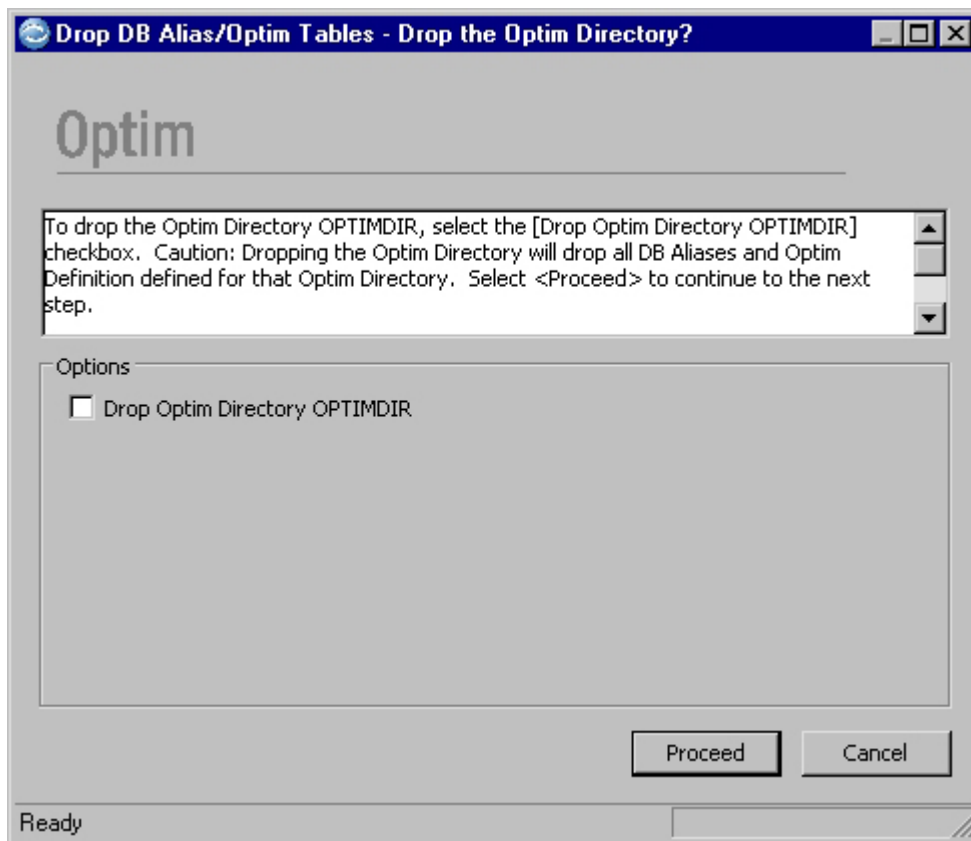
If you do not drop another DB Alias, the Configuration program opens the Drop the Optim Directory dialog. Select the check box to drop the Optim Directory.

Connect to Database

Optim must connect to the database to drop the Optim Directory tables and packages, plans, or procedures. Use the Connect to Database dialog (see “Connect to Database” on page 183) to specify the connection information.

Drop Optim Directory Tables

Before you drop an Optim Directory (and Optim Directory tables), the Configuration program displays the table identifier and prompts you to review the generated DDL, using the Drop Optim Directory Tables dialog.



To retain the Optim Directory tables and objects in it, click **Skip**.

Create/Drop Packages

When you drop an Optim Directory, all objects stored in that Directory are deleted. For this reason, the packages, plans, or procedures used to access the Optim Directory are no longer useful and should be dropped. The Create/Drop Packages, Bind/Drop Plans, or Create/Drop Stored Procedures dialog prompts you to do this.

Drop Another Optim Directory?

After you drop the Optim Directory, the Configuration program opens the Drop Another Optim Directory? dialog. Select the check box to restart the process for another Optim Directory.

Purge Optim Directory Registry Entry

For security or other reasons, you may want to purge the Windows registry entry for an Optim Directory from a workstation, but not drop the Directory or packages, plans, or procedures used to access that Directory. For example, when you remove an Optim Directory from a multi-user environment, you can purge the Optim Directory registry entry from each workstation. In addition, you can disable Optim for any workstation, simply by purging the registry entry.

When you select **Purge Optim Directory Registry Entry** from the **Tasks** menu, the Configuration program opens a dialog explaining the process and prompting you to confirm that you want to purge the registry entry for access to the Optim Directory rather than drop the Optim Directory. Select the check box to purge the registry entry.

Note: To reinstate a purged Optim Directory, refer to "Access Existing Optim Directory" on page 173.

Purge a Pre-6.0 Optim Directory Entry

After you confirm that you want to purge an Optim Directory entry, the Configuration program prompts you to indicate the version of the registry entry you want to purge. Select **Purge a pre-6.0 Optim Registry Entry** to purge an Optim Directory registry entry created before version 6.0. To purge an Optim Directory registry entry created with version 6.0 or later, leave this option blank. Click **Proceed** to open the next dialog.

Specify Optim Directory

After you confirm the version of the Optim Directory entry you want to purge, the Configuration program opens the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170). Use this dialog to provide the name of the Optim Directory for the Windows registry entry you want to purge. Click **Proceed** to open the next dialog.

Confirm Purge Optim Registry Entry?

After you select the Optim Directory for the registry entry you want to purge, the Configuration program prompts you to confirm the Directory name. Select the check box and click **Proceed** to purge the registry entry for the named Optim Directory. Next, the Configuration program opens a query dialog that prompts you to purge the registry entry for another Optim Directory. To purge another, select the check box and click **Proceed** to open the Specify Optim Directory dialog and select another Optim Directory.

Purge DB Alias

Select **Purge DB Alias** from the **Tasks** menu to delete a DB Alias from an Optim Directory without connecting to the database. This task does not drop packages, plans, or procedures created with the DB Alias, nor does it drop sample or other tables accessed using the DB Alias.

You may purge a DB Alias any time you drop a database; for example, when a database used for testing applications is dropped after testing is completed. You may also purge a DB Alias to make a database temporarily inaccessible to the workstations using Optim.

Note: To reinstate a purged DB Alias, refer to “Create/Update DB Alias” on page 170.

Specify Optim Directory

Use the Specify Optim Directory dialog (see “Specify Optim Directory” on page 170) to select the name of the Optim Directory in which the DB Alias entry you want to purge is located. Click **Proceed** to open the next dialog.

Create/Select DB Alias

Use the Create/Select DB Alias dialog (see “Create/Select DB Alias” on page 185) to specify a DB Alias to purge. Click **Proceed** to open the next dialog.

Confirm Purge DB Alias?

After you select a DB alias to purge, the Configuration program prompts you to confirm the selected DB Alias is to be dropped. This option is selected when the dialog opens. Click **Proceed** to continue. Next, the Configuration program opens a query dialog that prompts you to purge another DB Alias. To purge another DB Alias, select the check box and click **Proceed** to open the Create/Select DB Alias dialog on which you can select another DB Alias.

Chapter 8. Product Options

Each workstation using Optim must reference a Product Configuration File. The path to the appropriate Product Configuration File is specified in Personal Options. You must use the Product Options dialog, however, to create a Product Configuration File.

Note: A password is required to open the Product Options dialog.

Generally, Product Options parameters enforce site and system requirements. Use the Product Options dialog to:

- Name the Product Configuration File.
- Establish password security for Product Options.
- Limit the amount of data that can be processed at one time.
- Define defaults and user control over certain activities.
- Provide connection information for machines hosting the Optim Server (Server).
- Specify general parameters for editing or archiving.
- Customize loader parameters and enforce loader requirements.

Configuring Product Options

You can configure Product Options using the Configuration program, or you can set options within Optim. In either case, you will use the Product Options dialog.

Using the Configuration Program to Configure Product Options

You can use the Configuration program to configure Product Options when you first install and configure Optim.

1. Open the Optim Configuration component.
2. In the main window, select **Configure Options** from the **Tasks** menu.
3. Specify an Optim Directory and click **Proceed**.
4. Click **Skip** on the Initialize Security/Change Security Administrator, Enable/Disable the Optim Server Feature, and Enable/Disable the Archive ODBC Feature dialogs to open the Specify Product Configuration File dialog.
5. Select **Create New File** or **Use Existing File**, verify the name of the Configuration File, and click **Proceed** to open the Modify Product Options dialog.
6. Click **Product Options** to open the Enter Product Options Password dialog.
7. Specify the case-sensitive password to open the Product Options dialog. (The initial password is *optim*.)
8. Enter the necessary details on each tab in Product Options.
9. Choose one of the following:
 - To close the Product Options dialog without saving your changes, click **Cancel**.
 - To save your changes and continue using the Product Options dialog, click **Apply**.
 - To save your changes and close the Product Options dialog, click **OK** to return to the Modify Product Options dialog.
10. Click **Proceed** to open the Modify Personal Options dialog.

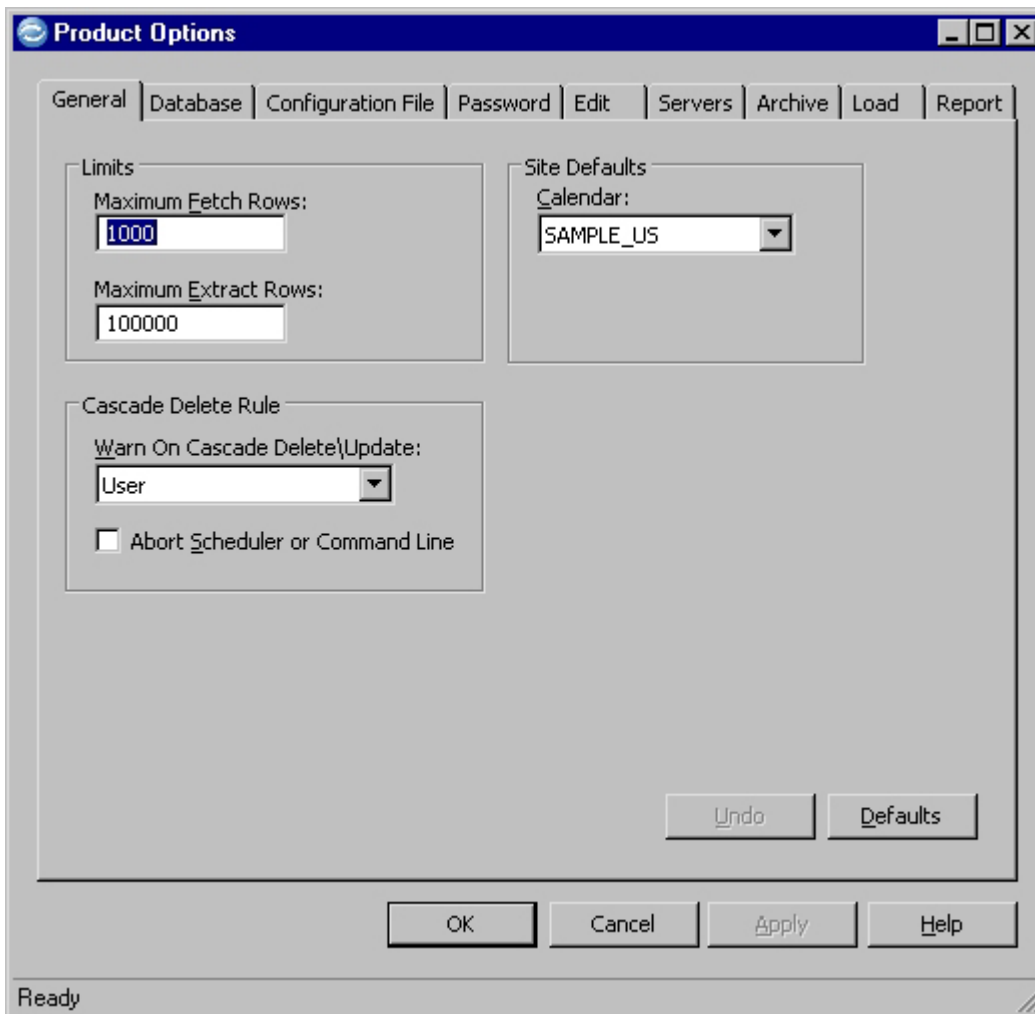
Configuring Product Options within Optim

You can configure Product Options within Optim after you have installed and configured Optim.

1. In the main window, select **Product** from the **Options** menu to open the Enter Product Options Password dialog.
2. Specify the case-sensitive password to open the Product Options dialog. (The initial distributed password is *optim*.)
3. Specify the necessary details on each tab in Product Options.
4. Choose one of the following:
 - Click **Cancel** to close the Product Options dialog without saving your changes.
 - Click **Apply** to save your changes and continue using the Product Options dialog.
 - Click **OK** to save your changes and close the Product Options dialog.

Using the Editor

The Product Options dialog allows you to customize various features and display options in Optim. Several tabs in the Product Options dialog allow you to review and set the options as required.



Tabs

The tabs in the Product Options dialog are described briefly in the following paragraphs. Detailed information is provided in each section of this chapter.

General

Establish the maximum number of rows that can be read from a table when browsing or editing table data or using Point and Shoot, and the maximum number of rows that can be extracted or archived during a single process. Also, choose a default Calendar and set cascade delete/update options. (The **General** tab is always foremost when the dialog opens.)

Database

Establish the maximum number of rows that can be processed in an Insert or Delete Process before a *commit* is issued, and prevent or allow optional table locks during an Insert or Delete Process.

Configuration File

Establish the path to the Configuration File for the selected Product Options.

Password

Change the password for the Product Options dialog.

Edit Select audit preferences for editing data. Specify other site options for using default values.

Servers

Specify protocol, endpoint address, and network information for machines configured with the Server.

Archive

Select options that apply to Archive Processes.

Load Specify options for adding Loader parameters.

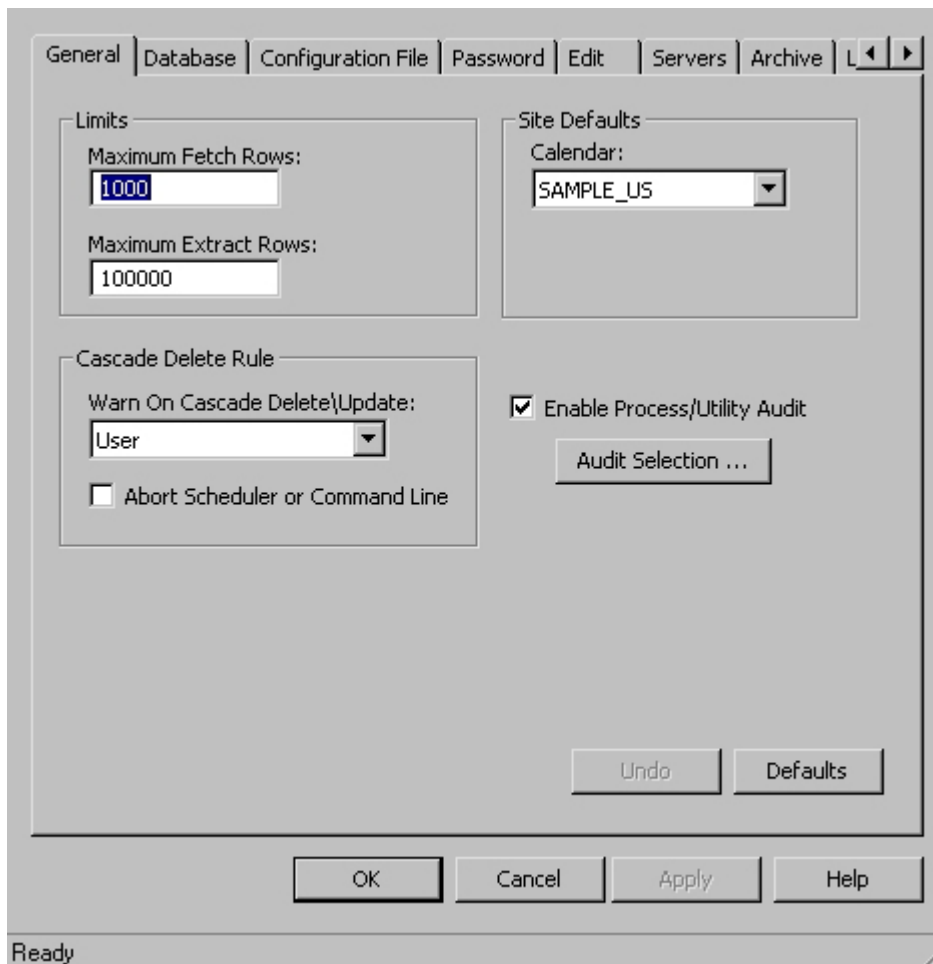
Report

Specify defaults for creating reports using the Report Request Editor, including limits and spacing preferences.

General Tab

Use the **General** tab to establish default fetch and extract limits for Archive, Compare, Edit, and Extract Processes. You can also select the site default calendar, determine when to display a warning for a cascade delete, and enable auditing for Optim processes.

Use the **General** tab to set these options:



Limits

Establish the maximum number of rows in a fetch set for browsing or editing data or using Point and Shoot, and the maximum number of rows for extracting or archiving data.

Maximum Fetch Rows

Specify the maximum number of rows (1 - 100000) retrieved from a table. This limit applies to rows that are fetched to browse or edit table data or for Point and Shoot. If you do not specify a value, the default value is 1000.

A user can establish a lower **Maximum Fetch Rows** limit by selecting **Personal** from the **Options** menu and editing the **Display** tab.

Maximum Extract Rows

Specify the maximum number of rows (1 - 999999999) that can be processed during a single Extract or Archive Process. If you do not specify a value, the default value is 100000.

A **Row Limit** for an Archive or Extract Process cannot exceed this value.

Site Defaults

The site-specific, default Calendar used to schedule action requests or to age data in a Column Map.

Calendar

Select a site default Calendar. To select from a list of available calendars, click the down arrow. You can select a different calendar on a process request, as needed.

Cascade Delete Rule

Set options for performing a cascading delete or update on tables that are not explicitly included in an Access Definition or a process.

Warn on Cascade Delete/Update

Click the down arrow to choose when to display a warning if a cascading delete or update may occur.

User Allow the user to determine when to display a warning. This is the default setting.

The corresponding **Warn on Cascade Delete/Update** setting in Personal Options is enabled. See “Warn on Cascade” on page 273 for more information.

Runtime

Display a cascade delete/update warning only at run time of a process.

The corresponding setting in Personal Options is unavailable and set to **Runtime**.

Saving Access Definition

Display a cascade delete/update warning only when saving the Access Definition.

The corresponding setting in Personal Options is unavailable and set to **Saving Access Definition**.

Always

Display a cascade delete/update warning at run time of a process, and when saving the Access Definition.

The corresponding setting in Personal Options is unavailable and set to **Always**.

Never Do not display a cascade delete/update warning.

The corresponding setting in Personal Options is unavailable and set to **Never**.

Abort Scheduler or Command Line

Select this check box to abort the process when run from the Scheduler or the Command Line Interface, and the cascade delete/update affects at least one table that is not explicitly included in the process. (This check box is selected by default.)

Audit Facility

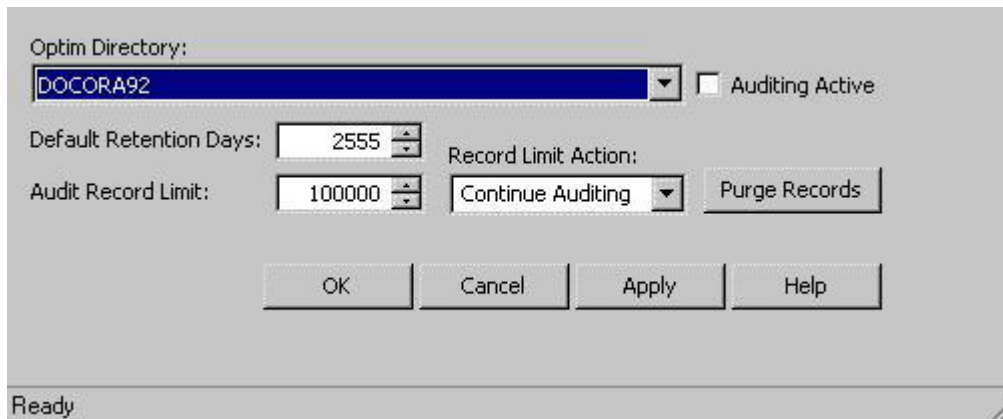
Activates auditing for Optim processes. You can enable auditing for specific Optim Directories. When auditing is active for a Directory, audit records are written to the Optim Directory Audit Table for these processes: Archive, Convert, Compare, Delete, Edit, Extract, Insert, Load, ODM, Report, Restore, Browse, Import, Export, Create. See Appendix L, “Process Audit,” on page 525 for additional details.

Enable Process/Utility Audit

To enable auditing, select this check box and click **Audit Selection...** to display the Audit Facility dialog, shown below. To create audit records for processes for an Optim Directory, display the Directory name from the drop-down list and select the check box for **Auditing Active**.

Note: To activate auditing, you must select the check box for **Enable Process/Utility Audit** on the Product Options **General** tab and select **Auditing Active** for the Optim Directory named on the Audit Facility dialog.

To disable auditing, do not select this check box. When the **Enable Process/Utility Audit** check box is unselected, all auditing is disabled, regardless of any auditing specification at the Optim directory level.



The Audit Facility dialog has the following fields:

Optim Directory:

Name of the Optim Directory for which you are enabling or disabling auditing. Enable auditing by selecting the check box **Auditing Active**

Default Retention Days:

Number of days for audit records to be retained. Specify a value in the range 1 - 999,999,999,999. The default value is 2,555 days (7 years).

Audit Record Limit:

Number of audit records maintained at any time. Select a value in the range 100 - 999,999,999,999. The default value is 100,000.

Record Limit Action:

Action to be performed when the **Audit Record Limit** is exceeded. Select one of these options:

Continue Auditing

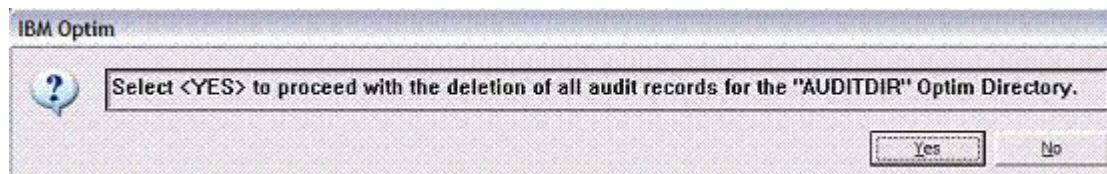
Optim will continue to generate audit records. This is the default.

Stop Auditing

Optim will not generate audit records for processes.

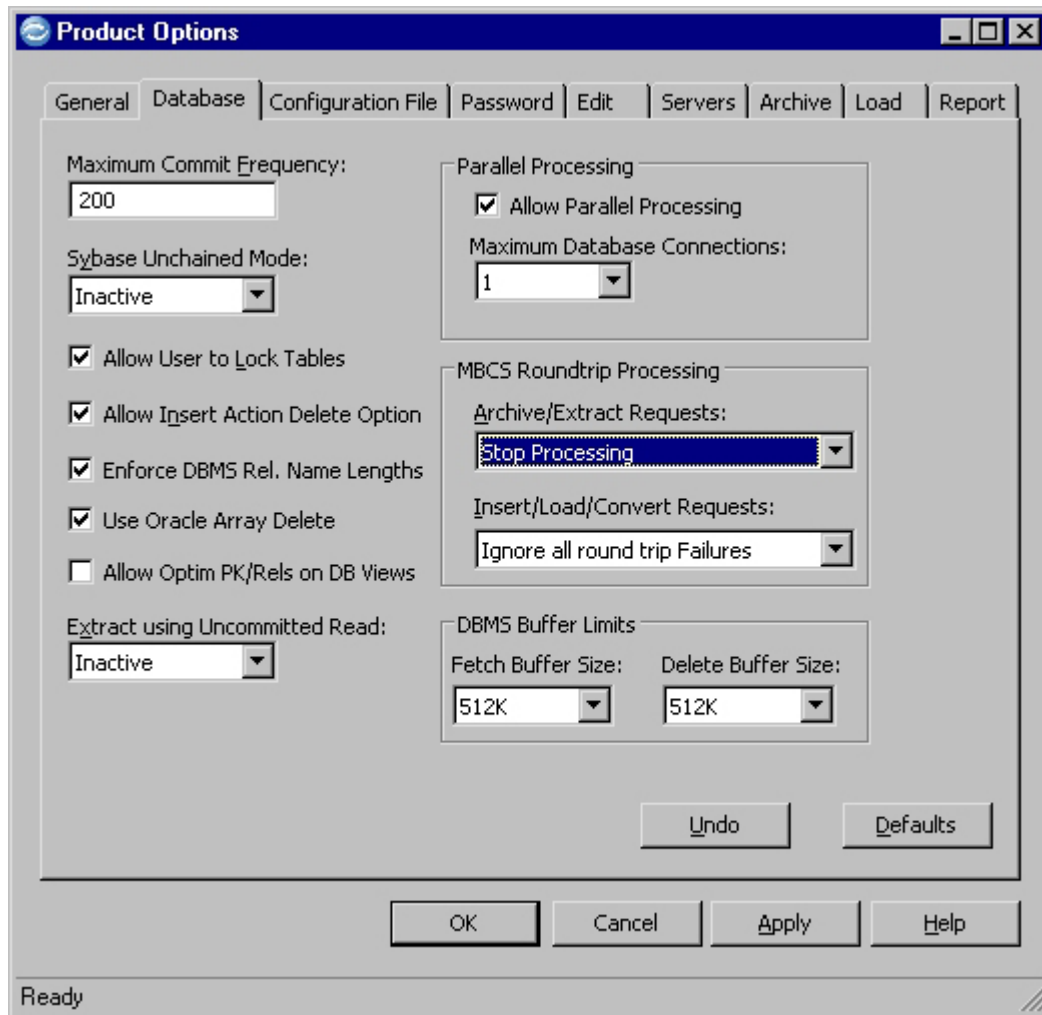
Purge Records

Deletes all audit records for the Optim Directory. A confirmation prompt displays:



Database Tab

Use the **Database** tab to manage database activity during Insert, Restore, and Delete Processes.



Maximum Commit Frequency

Specify the maximum number of rows (1 - 999999) inserted, restored, or deleted before changes are committed to the database. If you do not specify a limit, the default value is 200. An Insert, Restore, or Delete Request can require more frequent commits.

Sybase Unchained Mode

Optim normally runs in chained mode. When a trigger in a Sybase ASE table will be fired as a result of an Insert or Delete Process, and the trigger calls a stored procedure that must run in unchained mode, the connection must be in unchained mode for the procedure to work.

Select an option for running an Insert or Delete Process, as follows:

Active Require Insert, Restore, and Delete Processes to run in unchained mode; the **Run in Unchained Mode** check box in Personal Options (see "Sybase Unchained Mode" on page 288) is unavailable.

Inactive

Set all processes to run in normal mode; the **Run in Unchained Mode** check box in Personal Options is unavailable.

Default Active

The **Run in Unchained Mode** check box in Personal Options is available and selected, by default. Insert, Restore, and Delete Processes run in unchained mode unless the **Run in Unchained Mode** check box in Personal Options is cleared.

Default Inactive

The **Run in Unchained Mode** check box in Personal Options is available and cleared, by default. Insert, Restore, and Delete Processes run in normal mode unless the **Run in Unchained Mode** check box in Personal Options is selected.

Allow User to Lock Tables

Select this check box to enable the **Lock Tables** option in the Insert, Restore, and Delete Request Editors. Users can then use the option to lock tables during an Insert, Restore, or Delete Process. Locking tables ensures that other database activity does not interfere with the process and prevents other users from accessing tables involved in the process.

Allow Insert Action Delete Option

Select this check box to enable the **Delete Options** box in the Insert Request Editor. If you clear this check box, the **Delete Options** box is unavailable, and the **Delete** option is set to **No Tables**, by default.

Enforce DBMS Rel. Name Lengths

Select this check box to enforce DBMS restrictions for relationship name length when creating or importing relationships. This option is selected by default. Clear this check box to override DBMS naming restrictions and create or import relationships with names (constraints) up to 64 characters. After changing this option, you must exit Optim before the change takes effect. You cannot create a DBMS relationship based on an Optim relationship with a name that exceeds the DBMS restrictions.

Use Oracle Array Delete

Select **Use Oracle Array Delete** to use the Oracle array delete feature during a Delete Process. This option is selected by default.

Note: If your site audits Delete processing, be aware that Array Delete may report rows as being successfully deleted that do not exist in the database and, therefore, were not actually deleted by the process.

The Oracle array delete feature is performed during a Delete Process only when the following are true:

- **Compare Row Contents** is not selected in the Delete Request Editor.
- Both the table in the source file and database have a unique primary key.
- The table has no file attachments to be deleted.

Allow Optim PK/Rels on DB Views

Select this check box to allow users to define Optim Primary Keys and Relationships for database views.

Extract using Uncommitted Read

Set an option to enable extracting of uncommitted rows from the database during an Archive or Extract Process. You can extract uncommitted rows from specific tables in the Access Definition or all tables. Selecting this option for tables with known performance problems may increase the speed of your Archive or Extract processes. This option is available only if your Optim license key includes support for a DB2 LUW or DB2 z/OS database.

Active Automatically extract uncommitted rows from each table in the Access Definition during all Archive or Extract Processes. The **Uncommitted Read** check box on the Access Definition Editor is unavailable.

Inactive

Automatically extract only committed rows from each table in the Access Definition during all Archive or Extract Processes. The **Uncommitted Read** check box on the Access Definition Editor is unavailable.

Default Active

The **Uncommitted Read** option on the Access Definition Editor is available and selected by default. Uncommitted rows are extracted from the table unless the **Uncommitted Read** check box is cleared.

Default Inactive

The **Uncommitted Read** option on the Access Definition Editor is available and cleared by default. Uncommitted rows are not extracted from the table unless the **Uncommitted Read** check box is cleared.

Notes:

- If you choose to extract uncommitted rows, the relational integrity of the data in the Archive or Extract File may be compromised. Use caution if inserting data from any Archive or Extract File with uncommitted rows.
- Optim disables the extracting of uncommitted rows if the DBMS or version does not support it, regardless of the setting.

Parallel Processing

Set options to determine the maximum number of concurrent database connections allowed. Increasing database connections improves performance when processing large quantities of data by allowing multiple threads to process rows in parallel.

Allow Parallel Processing

Select this check box to enable **Maximum Database Connections**.

Maximum Database Connections

Increase the maximum number of concurrent database connections for an Archive, Extract, or Delete Process. You can select an even number of maximum database connections, from 2 through 32, or **Maximum**. Your selection enables **Database Connections** on the Archive, Extract, and Delete Request Editors and **Maximum Database Connections** in Personal Options (see "Parallel Processing" on page 286).

MBCS Roundtrip Processing

Options for handling characters that could cause round-trip conversion issues in a multi-byte Optim Directory or DB Alias.

Optim uses the Unicode character set in dialogs and to process data. In some multi-byte character sets (such as Oracle JA16SJIS), multiple characters are mapped to the same Unicode character. When these characters are converted from Unicode back to multi-byte (a round trip), the original character may not be returned.

Archive/Extract Requests

Select an option for handling round-trip conversion issues during Archive or Extract processing:

Stop Processing

Stop processing when a multi-byte character is encountered that could cause an incorrect round-trip conversion. Each row of data is checked for characters that could cause an incorrect round-trip conversion.

Ignore all round-trip Failures

Continue processing when a multi-byte character is encountered that could cause an incorrect round-trip conversion. (Default.)

Use Value from Personal Options

Use the round-trip processing setting from the **Database** tab in Personal Options.

Insert/Load/ Convert Requests

Select an option for handling round-trip conversion issues during Insert, Load, or Convert processing:

Stop Processing

Stop processing when a multi-byte character is encountered that could cause an incorrect round-trip conversion. Each row of data is checked for characters that could cause an incorrect round-trip conversion.

Ignore all round-trip Failures

Continue processing when a multi-byte character is encountered that could cause an incorrect round-trip conversion. (Default.)

Use Value from Personal Options

Use the round-trip processing setting from the **Database** tab in Personal Options.

Select the **Ignore all round trip Failures** option if the database does not contain data with characters that could cause an incorrect round-trip conversion, or if columns used to manipulate data in a Column Map (for example, a function is used) and columns for which selection criteria are defined do not contain characters that could cause an incorrect round-trip conversion.

DBMS Buffer Limits

Set the buffer size to use when fetching or deleting rows from the database. Optim multiplies the specification for Fetch Buffer Size or Delete Buffer Size by the value for **Maximum Database Connections**. You can select a value from 64K to 1024K, in increments of 32. Use the default value unless you are processing tables larger than 10,000 rows.

Fetch Buffer Size

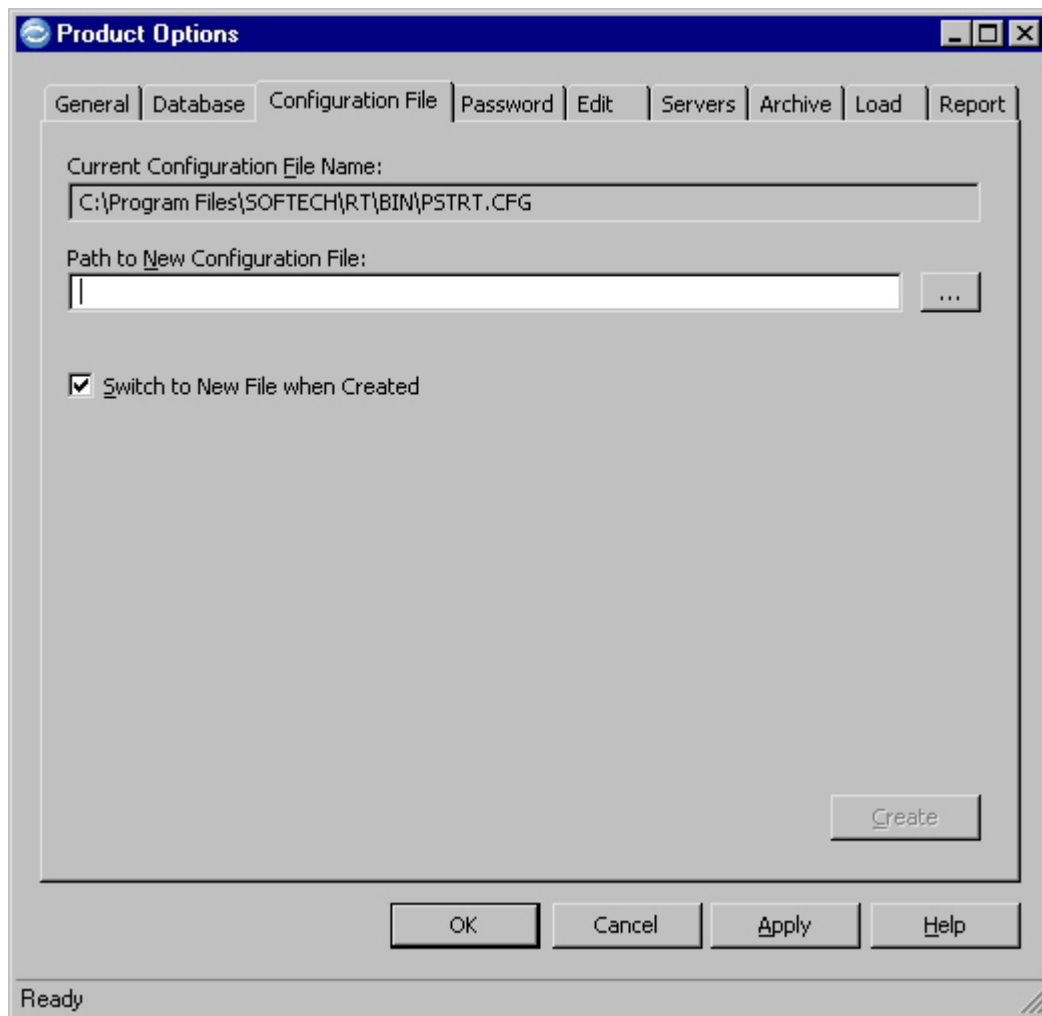
Size of the buffer used when rows are fetched from the database. The default is 512K.

Delete Buffer Size

Size of the buffer used when rows are deleted from the database. The default is 512K.

Configuration File Tab

Use the **Configuration File** tab to review the path for the current Configuration File and set new Configuration File preferences.



Current Configuration File Name

Directory path and name of the Configuration File that Optim is currently using.

Path to New Configuration File

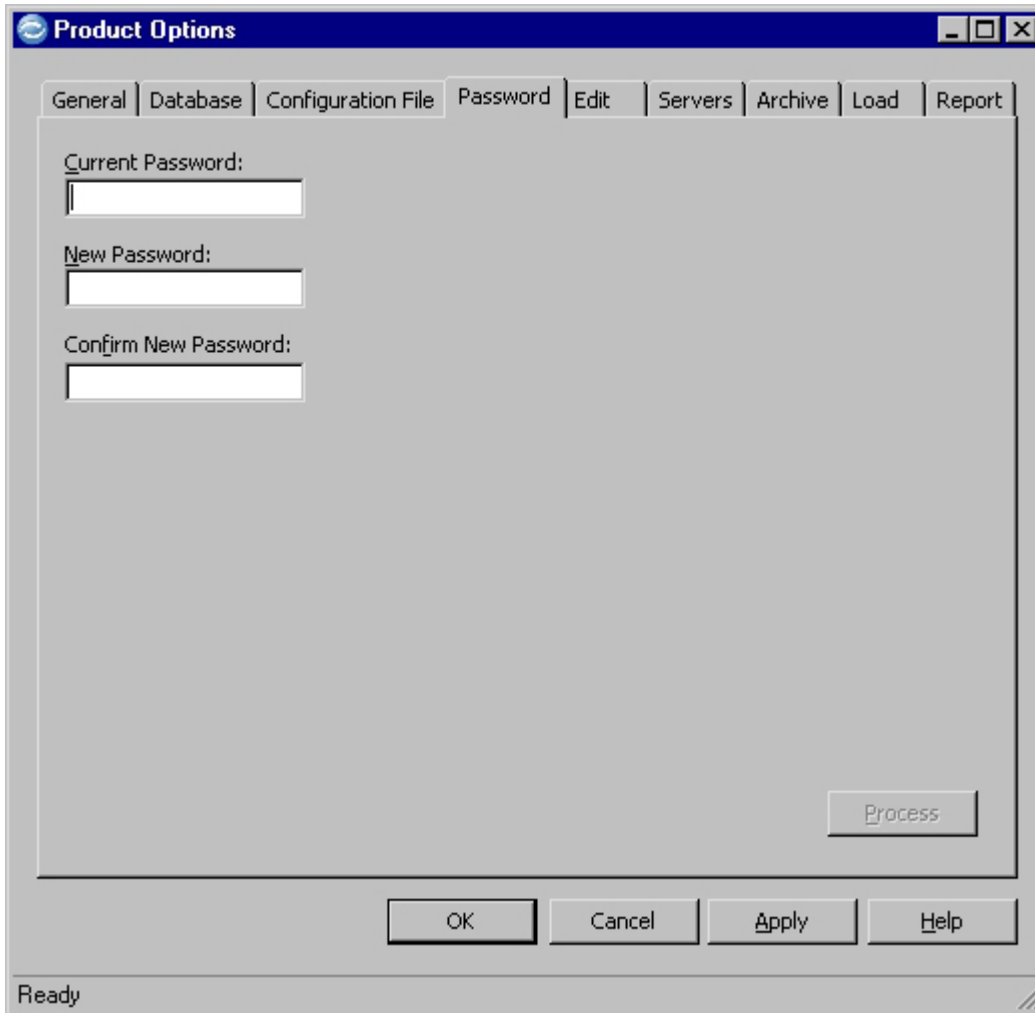
Specify the directory path for a new or different Configuration File. To select an existing Configuration File from your system directories, click the browse button. To create a new Configuration File, specify the directory path and file name and then click **Create**. If you do not specify a full directory path with the file name, the current drive and directory are used.

Switch to New File when Created

Select this check box to apply the new Configuration File as soon as it is created. Do not select this check box if you intend to modify the current Product Options and want to retain the original Configuration File.

Password Tab

Use the **Password** tab to change the password needed to access Product Options.



The screenshot shows a Windows-style dialog box titled "Product Options". It has a tabbed interface with the following tabs: General, Database, Configuration File, Password (selected), Edit, Servers, Archive, Load, and Report. The "Password" tab is active, displaying three text input fields: "Current Password:", "New Password:", and "Confirm New Password:". Each field is currently empty. A "Process" button is located at the bottom right of the main content area. At the bottom of the dialog box, there are four buttons: "OK", "Cancel", "Apply", and "Help". The status bar at the very bottom of the window displays the word "Ready".

Current Password

Enter the current password (1 to 8 characters). Passwords are case-sensitive. Initially, this password is *optim*.

New Password

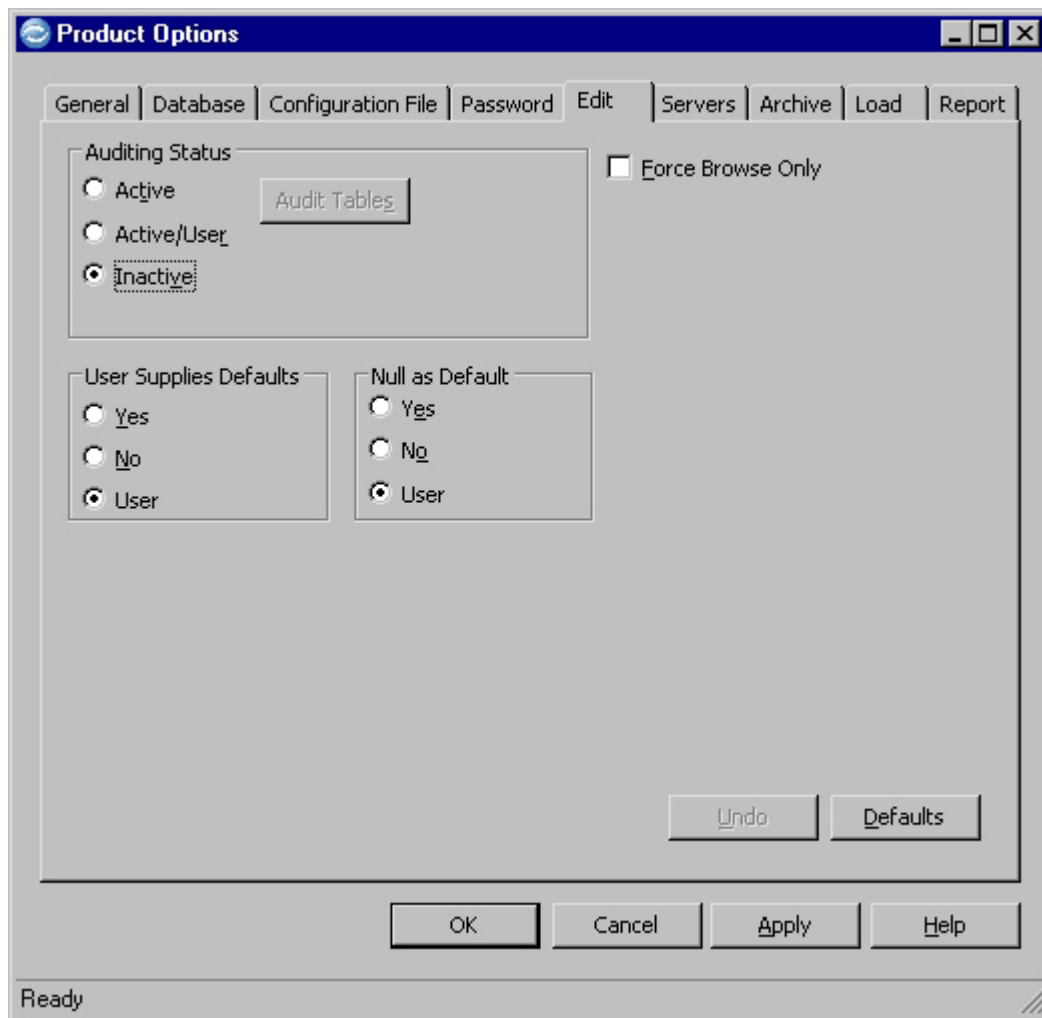
Enter the new password (1 to 8 characters, case-sensitive). For security reasons, the password is displayed as a series of asterisks (****).

Confirm New Password

Confirm the new password by entering it a second time. For security reasons, the password is displayed as a series of asterisks (****).

Edit Tab

Use the **Edit** tab to select audit preferences for editing data and specify other site options for using default values.



Auditing Status

Activate auditing to record rows that you edit and store images of unedited rows in an Optim Directory table. You can browse these rows, establish the period of time for which they are stored rows, and limit the number of rows retained. When rows of audit information expire, they are automatically deleted. When the maximum number of rows is exceeded, the oldest rows are deleted to make space for new rows.

Active Select this option to enable the auditing feature at the site level. Click **Audit Tables** to open a dialog on which you can select tables to be audited on a site basis.

Active/User

Select this option to activate auditing at the site level and allow users to establish auditing for the workstation. Click **Audit Tables** to open a dialog on which you can select tables to be audited on a site basis.

This option enables the auditing feature in Personal Options (see “Auditing Active” on page 273). Users can select additional tables to audit, but cannot disable auditing for tables audited on a site basis.

Inactive

Select this option to disable the auditing feature. No users can audit.

User Supplies Defaults

Choose whether to require user-supplied values in columns that cannot accept default values. This option applies to new rows that a user inserts while editing a database table.

Note: Optim can provide a default value according to the data type. Possible values include blank, NULL, zero, current date, current time, or current timestamp.

- Yes** Select this option to require a user-supplied value for every column that cannot accept a default value. If you select this option, the **User Supplies Defaults** check box in Personal Options (or Edit Preferences for the Table Editor) is unavailable. See “User Supplies Defaults” on page 273 for more information.
- No** Select this option if your site does not require user-supplied values for columns that cannot accept a default value.
- User** Select this option to allow users to supply a value for any column that cannot accept a default value. If you select this option, users can modify this selection in Personal Options (or Edit Preferences in the Table Editor).

Null as Default

Choose whether to use the NULL character as the default value for nullable columns. This option applies to new rows that a user inserts while editing a database table.

Note: Optim can provide a default value based on the column data type. Other than NULL, possible values include blank, zero, current date, current time, and current timestamp.

- Yes** Select this option to display the NULL character as the default value for nullable columns when editing data. If you select this option, users cannot modify this selection in Personal Options (or Edit Preferences in the Table Editor). See “Display NULL as Insert Default” on page 273 for more information.
- No** Select this option if your site prefers not to display the NULL character as the default value for nullable columns while editing data.
- User** Select this option to allow users to display the NULL character as the default value for nullable columns while editing data. If you select this option, users can modify this selection in Personal Options (or Edit Preferences in the Table Editor).

Force Browse Only

Select this check box to force all new and existing Edit Definitions to be in Browse Only mode. When you select this check box, edit options on the **Edit** tab in Personal Options and the Edit Preferences on the Table Editor are unavailable. (For example, the option for **Undo Levels** is unavailable, because Undo entries are not created in Browse Only mode.)

Audit Tables Dialog

If you select **Active** or **Active/User** on the **Edit** tab of the Product Options dialog, click **Audit Tables** to display the Audit Tables dialog. Specify default parameters that apply to all processed tables and a list of tables for which one or more defaults are overridden.

Optim Directory:
DOCORA92

Auditing Defaults

☒ Enabled Days to Retain: 366 Maximum Rows: 1000

☒ Write all Columns

	Table Name/Pattern	Status	Days to Retain	Max Rows	Write Option
1	DBMS.OPTUSR4.DETAILS	Enabled	366	1000	All Columns
2	DBMS.OPTUSR4.CUSTOMER	Enabled	366	1000	All Columns

OK Cancel Help

Ready

Optim Directory

Specify the Optim Directory for which audit parameters are defined. If your site has more than one Optim Directory, click the down arrow to select from a list.

Audit results are stored in the PSTAUDIT table, in the Optim Directory. If authorized, you may browse or edit the PSTAUDIT table in the same way you browse or edit any other database table. However, **Auditing Status** in Product Options must be set to **Active** or **Active/User** and you must have database SELECT authority for the PSTAUDIT table.

Auditing Defaults

Specify the defaults for the auditing option at your site:

Enabled

Select to audit processing for *all* tables, unless overridden in the Table Name/Pattern list. For example, if a table (or pattern) is listed and **Disabled** status is specified, the table is not audited.

Write All Columns

Select to record information for *all* columns in updated, deleted, or inserted rows, unless overridden in the Table Name/Pattern list. If you clear this check box, audit information is recorded for changed columns, inserted rows, and tables that do not have a primary key.

Days to Retain

Specify the maximum number of days (0 to 999) to retain Audit information, unless overridden in the Table Name/Pattern list. Audit information is purged automatically after the specified number of days elapse. Specify zero (0) or leave blank to retain Audit information indefinitely.

Maximum Rows

Specify the maximum number of audited rows (0 to 999999) to retain for each database table,

unless overridden in the Table Name/Pattern list. The oldest rows are deleted to create space to accept new rows. Specify zero (0) or leave blank to retain an unlimited number.

Table Name/Pattern List

Tables for which table-specific audit parameters apply. If you select the **Active/User** option for auditing database tables, the Product Options list supersedes any list users may specify in Personal Options.

Table Name/Pattern

Specify the fully-qualified name of the database table or a pattern that identifies the database tables, in the form *dbalias.creatorid.tablename*. You can also right-click a grid cell and select **Add Tables** to display a selection list.

Status Select the auditing status for the table or tables. Click to display a down arrow and select **Enabled** or **Disabled** for each table or pattern in the list. Use this selection to override the default status established with the **Enabled** check box.

Note: If auditing is disabled for a table, other table-specific parameters cannot be edited.

If a table is listed in both Personal Options and Product Options, the status in Personal Options is **Superseded by Product List**. The user cannot change the auditing status for that table. Users can modify the table name, however, or remove it from the list.

Days to Retain

Specify the maximum number of days (1 to 999) to retain audit information for the table or tables. To retain Audit information indefinitely, specify zero (0) or leave blank.

Max Rows

Specify the maximum number of audit rows (1 to 999999) retained for each database table or tables. To retain an indefinite number of rows, specify zero (0) or leave blank.

Note: The **Max Rows** limit is checked after 15 commits to the database table.

Write Option

Select the level of audit information to record for the table or tables. Click to display a down arrow and select:

- **All Columns** to record audit information for all columns in edited rows.
- **Changed Columns** to record audit information as follows:
 - Record an image of all columns in an inserted row.
 - Record an image of the primary key column in a deleted row. If there is no primary key, record an image of all columns.
 - Record an image of the primary key columns and any changed columns in an updated row.

Example

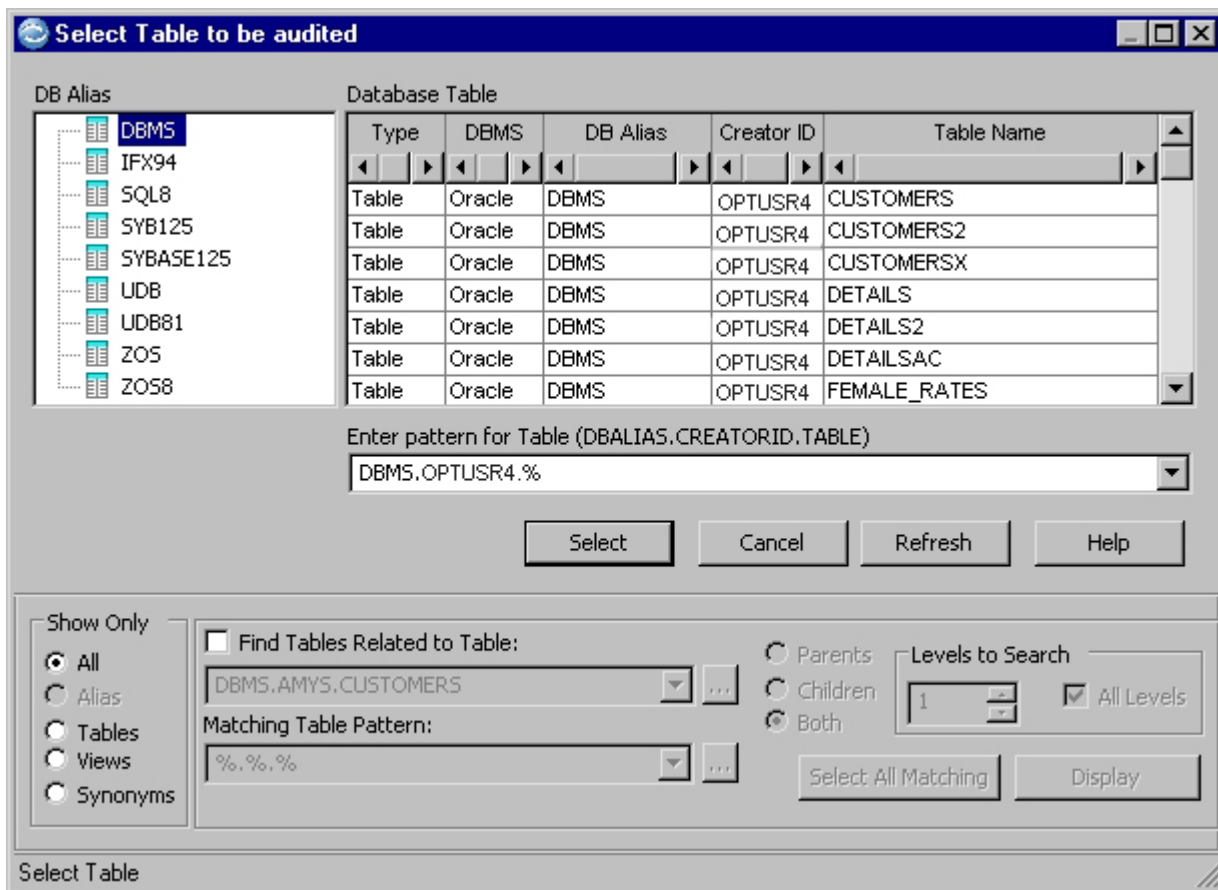
Default specifications are propagated to new entries in the list of tables and can be useful when building the list. For example, if your database includes 100 tables and you want to retain audit information for fifty tables for a period of 90 days, information for thirty tables for a period of 1 year, information for 5 tables for an indefinite period, and do not want to audit processes on the remaining 15 tables, build the list of audit instructions in the following way:

1. Clear **Enabled**.
2. Enter, in the grid, names of the 15 tables that are not audited (select from a list or type names or patterns). **Status** is Disabled for each entry.
3. Select **Enabled** and set **Days to Retain** to 0.
4. Enter, in the grid, names of the five tables for which audit information is retained indefinitely (select from a list or type names or patterns). **Status** is Enabled and **Days to Retain** is 0 for the 5 new entries.

5. Set **Days to Retain** to 365.
6. Enter names of the thirty tables in the grid (select from a list or type names or patterns). **Status** is Enabled and **Days to Retain** is 365 for the 30 new entries.
7. Set **Days to Retain** to 90.
8. The fifty remaining tables are not entered in the grid. The default status for these tables is Enabled and audit information for each table is retained for 90 days.

Select Table To Be Audited Dialog

When you select **Add Tables** or **Replace Table** from the shortcut menu, the Select Table to be audited dialog is displayed. This dialog is also displayed when you use the Join command from the Table Editor.



The Select Table to be audited dialog provides a list of tables for the selected database.

- DB Aliases for available databases are listed on the left. To list tables in a database, double-click the DB Alias or overtype the DB Alias in the Pattern box.
- Objects referenced by the selected DB Alias are listed in the Database Table grid in alphabetical order by Creator ID and Table Name. The type of object (table, view, alias, synonym), DBMS, and fully-qualified name are provided.

Pattern

Use a pattern to limit the list of objects in the Select Table to be audited dialog. After you specify a pattern, click **Refresh** to display again the list based on your criteria.

Audit Summary

During an Edit Process, Optim audits tables according to the following parameters:

If Active

Check for the table name on the Product Options list in the Audit Tables dialog:

- If the table is on the list and **Enabled**, the table is audited.
- If the table is on the list and **Disabled**, the table is not audited.

If the table is not on the list, and the **Enabled** check box under **Auditing Defaults** in Product Options is selected, the table is audited.

If Active/User

Check for the table name on the Product Options list in the Audit Tables dialog:

- If the table is on the list and **Enabled**, the table is audited.
- If the table is on the list and **Disabled**, the table is not audited.

Check the **Edit** tab in the Personal Options dialog to determine if the **Auditing Active** check box is selected. If it is, check for the table name on the Personal Options list in the Audit Tables dialog:

- If the table is on the list and **Enabled**, the table is audited based on the default specifications in Product Options.
- If the table is on the list and **Disabled**, the table is not audited.

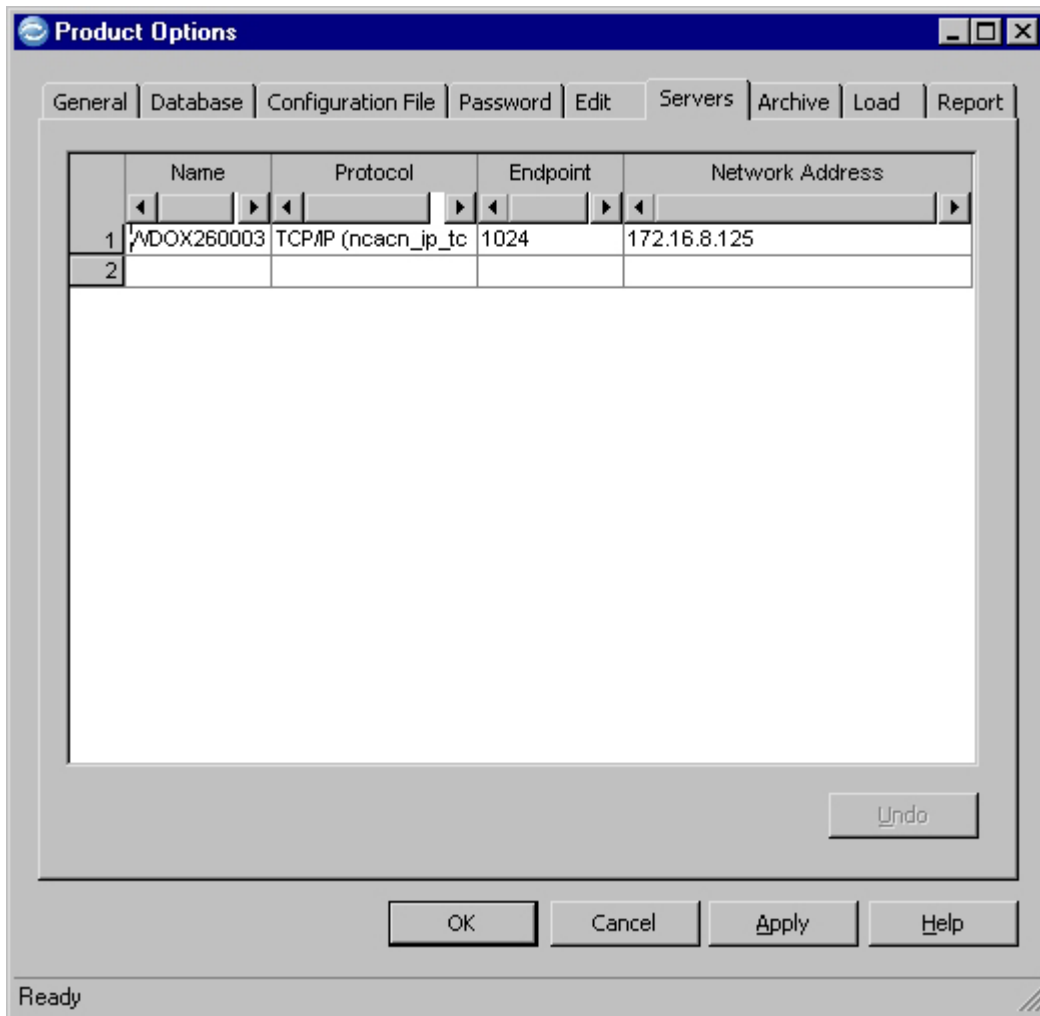
If the table is not on either list, and the **Enabled** check box under Auditing Defaults in Product Options is selected, the table is audited.

If Inactive

The audit feature is disabled and the table is not audited.

Servers Tab

When a task requires the movement, processing, or storage of very large volumes of data, the request can be defined at a workstation in the normal way, then directed for remote processing on a machine hosting the Server. If a workstation on your network is configured as a Server, you must provide the appropriate communication protocols so that other workstations can transfer process requests to it. Use the **Servers** tab to specify communication parameters for any Servers on your network.



Server Name

Enter the name of each Server (that is, the name given each Server when it was configured), with the corresponding connection information, as follows.

Supported Protocols (all)

Optim generates endpoints for all possible protocols; client machines connect via RPC Locator Service, where possible.

NetBIOS over TCP (ncacn_nb_tcp)

Endpoint: Integer from 1 through 254

Example: 100

Network Address: Windows computer name

NetBIOS over IPX (ncacn_nb_ipx)

Endpoint: Integer from 1 through 254

Example: 100

Network Address: Windows computer name

NetBEUI over NetBIOS (ncacn_nb_nb)

Endpoint: Integer from 1 through 254

Example: 100

Network Address: Windows computer name

TCP/IP (ncacn_ip_tcp)

Endpoint: Internet Port Number

Example: 1024

Network Address: Four-octet internet address, or host name

Named Pipe (ncacn_np)

Endpoint: Windows named pipe, starting with “\\pipe”

Example: \\pipe\\pipename

Network Address: Windows server name

SPX (ncacn_spx)

Endpoint: Integer from 1 through 65535

Example: 5000

Network Address: IPX internet address, or Windows server name

DECnet (ncacn_dnet_nsp)

Endpoint: DECnet phase IV object number, preceded by # character, or object name

Example: mailserver #17

Network Address: Area and node syntax

Apple Talk DSP (ncacn_at_dsp)

Endpoint: A character string, up to 22 bytes long

Example: myservicesendpoint

Network Address: Windows server name, optionally followed by @ and the AppleTalk zone name

Banyan Vines SSP (ncacn_vns_spp)

Endpoint: Vines SPP port number from 250 through 511

Example: 500

Network Address: StreetTalk server name of the form item@group@organization

Internet Information Server (IIS) (ncacn_http)

Endpoint: Internet port number

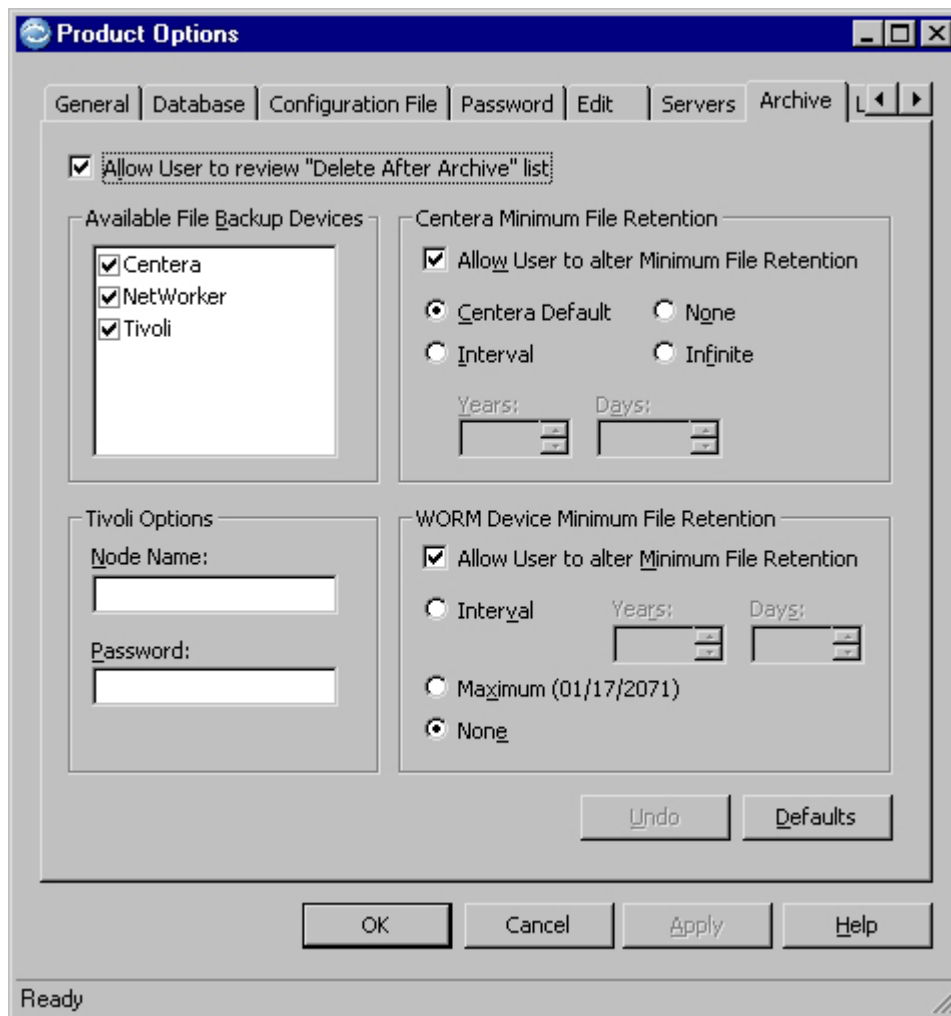
Example: 2215

Network Address: Internet address or local Windows server name

Note: You can specify a dynamic endpoint for any protocol using an asterisk (*). If Supported Protocols (All) is specified, an asterisk (*) displays automatically.

Archive Tab

Use the **Archive** tab to allow users to review data to be deleted after it has been archived, select available backup devices, and set a default minimum file retention period for supported devices.



Allow User to review “Delete After Archive” list

Select this check box to enable the **Review Archive Delete List** check box on the Archive and Delete Request Editors. This check box allows users to display and review the names of tables for which data is to be deleted as a function of archiving.

Available File Backup Devices

Select the appropriate check box(es) to make available one or more backup devices for use with Archive. (The check boxes are cleared by default.)

Centera

Select this check box if Centera is available. If you select this check box, the Centera Minimum File Retention box becomes available.

NetWorker

Select this check box if EMC NetWorker is available.

Tivoli Select this check box if Tivoli is available. If you select this check box, the Tivoli Options box becomes available.

Note: To use a Tivoli device, you must install the Tivoli client and API support on the machine where the Optim Server runs.

Note: You can copy an Archive File to a backup device by referencing a Storage Profile (with the necessary backup device parameters) in an Archive Request. For details, refer to the *Archive User Manual*.

Tivoli Options

Node Name

Specify an identifier that allows access to the Tivoli tape backup device.

Password

Specify a password that allows access to the Tivoli tape backup device.

Centera Minimum File Retention

Specify the default minimum retention period for protecting Archive Files on Centera from deletion. The minimum retention period is measured from the time the Archive Process copies the file to Centera. After the minimum retention period expires, the file can be deleted from Centera.

Allow User to alter Minimum Retention

Select this check box to enable the Minimum File Retention setting in the Storage Profile Utility, allowing users to override the default minimum retention defined in Product Options.

Centera Default

Select to use the Centera default minimum retention period, based on your Centera configuration.

Infinite

Select to keep an Archive File on Centera forever; the file cannot be deleted.

Interval

Select to protect an Archive File from deletion for a specified period. You can specify a number of years, days, or a combination of both.

When you select **Interval**, the **Years** and **Days** boxes become available.

Years Specify the number of years (0 to 100) to protect an Archive File from deletion. The default value is zero (0).

Days Specify the number of days (0 to 18300) to protect an Archive File from deletion. The default value is zero (0).

Note: 18300 days equals 50 years.

None Do not use a minimum retention period; allow an Archive File to be deleted from Centera at any time.

WORM Device Minimum File Retention

Specify the default minimum retention period for protecting Archive Files on a WORM device from deletion. The minimum retention period is measured from the time the Archive Process copies the file to the device. After the minimum retention period expires, the file can be deleted from the device.

Allow User to alter Minimum File Retention

Select this check box to enable the **WORM Device Minimum File Retention** options in the Storage Profile Utility, allowing users to override the default minimum retention defined in Product Options.

Interval

Select to protect an Archive File from deletion for a specified period after the file is generated. You can specify a number of years, days, or a combination of both.

When you select **Interval**, the **Years** and **Days** boxes become available.

Years Specify the number of years to protect an Archive File from deletion. The default value is zero (0).

Days Specify the number of days (0 to 999) to protect an Archive File from deletion. The default value is zero (0).

Note: The interval cannot exceed the maximum date, 01/17/2071. Archive checks the interval when you set the Product Options, save a Storage Profile, and run the Archive Process.

Maximum

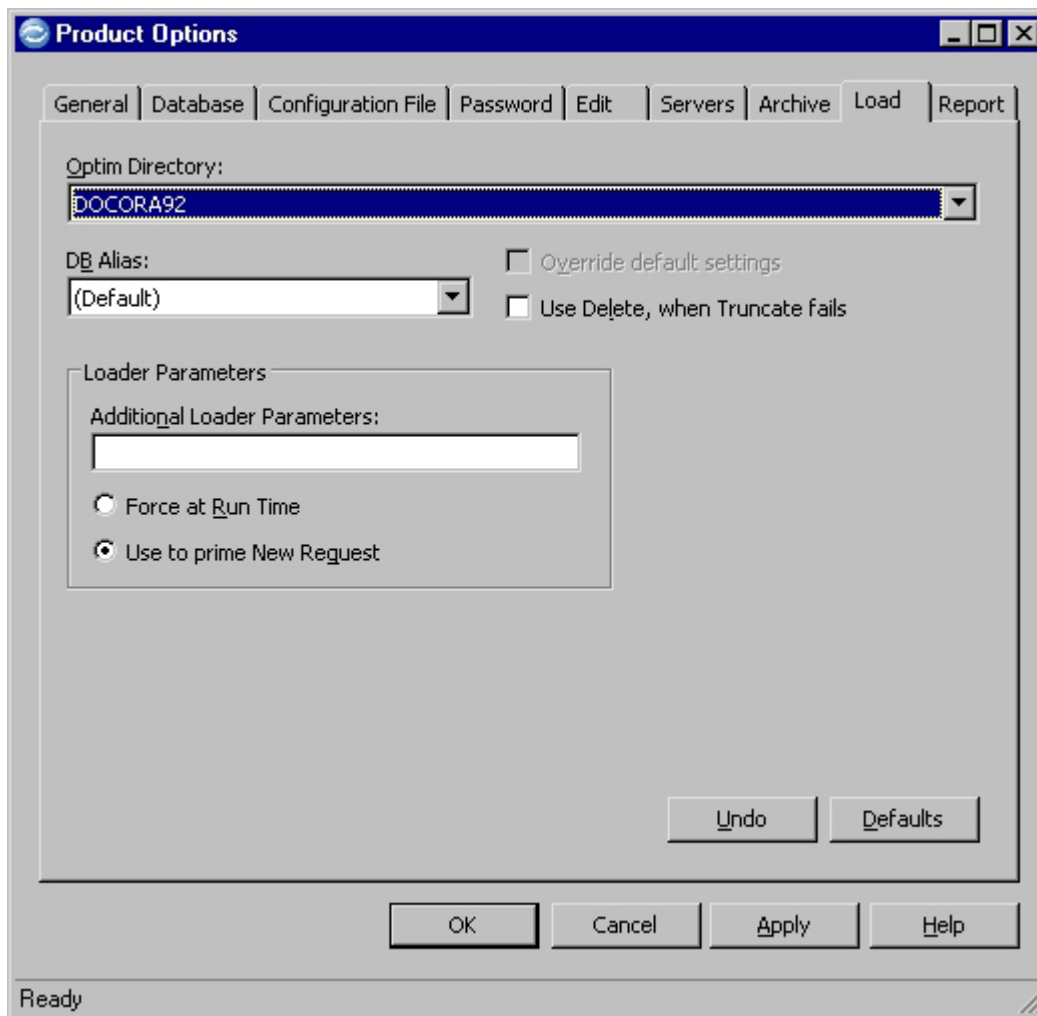
Use the maximum date, 01/17/2071.

None Do not use a minimum retention period; allow an Archive File to be deleted from the device at any time.

Load Tab

Use the **Load** tab to customize loader parameters and enforce loader requirements for your site. This can be particularly helpful when you have more than one database, or more than one Optim Directory. You can specify default parameters applicable to all defined DB Aliases, and as needed, specify unique parameters for each different database, each instance or version of a database, or each different Optim Directory.

For example, after selecting an Optim Directory, you can select [Default] in the **DB Alias** box. Loader settings you define will apply to all DB Aliases in the selected Optim Directory. If the default settings are not appropriate for one DB Alias, you can select that DB Alias in the **DB Alias** box, select the **Override default settings** check box, and define specific settings for that DB Alias only. You can repeat the procedure for any or all DB Aliases in the selected Optim Directory, and similarly, for all DB Aliases in each Optim Directory.



Optim Directory

Select the name of the Optim Directory containing the DB Aliases for which you want to customize loader parameters. If your site has more than one Optim Directory, and you want to specify loader parameters for DB Aliases contained in those directories, click the down arrow to select from a list.

DB Alias

Click the down arrow to select from the available DB Aliases in the selected Optim Directory. If you select [Default], the custom loader parameters you specify apply to all DB Aliases in the selected Optim Directory.

Override default settings

Select to define unique loader parameters for a specific DB Alias, when default values are defined for all DB Aliases in a selected Optim Directory.

Use Delete, when Truncate fails

This check box is applicable to SQL Server and Sybase ASE DB Aliases only. When **Replace** is specified in a Load Request, data loaded to the affected tables is truncated, unless the particular table is partitioned, in which case the truncate action will fail. Select this check box to issue the SQL Delete statement when the SQL Truncate statement fails.

Note: The SQL Delete statement may be significantly more resource-intensive than the SQL Truncate statement.

Loader Parameters

Additional Loader Parameters

Define additional loader parameters, as required, to append to the list created by Optim for loading data with a DBMS loader. See DBMS documentation for valid operands.

Force at Run Time

Select to force the use of the additional loader parameters defined in Product Options in place of any additional loader parameters specified in a particular Load Request.

Use to prime New Request

Select to populate new Load Requests with the additional loader parameters defined in Product Options. These parameters may be edited in the individual Load Requests, as necessary.

Report Tab

Use the **Report** tab to set formatting defaults for the Report Process.

The screenshot shows the 'Product Options' dialog box with the 'Report' tab selected. The dialog has a title bar with a blue background and a close button. Below the title bar is a tabbed interface with tabs for 'General', 'Database', 'Configuration File', 'Password', 'Edit', 'Servers', 'Archive', 'Load', and 'Report'. The 'Report' tab is active, showing two main sections: 'Limits' and 'Spacing'. The 'Limits' section contains four input fields: 'Rows Per Table' (100000), 'Lines Per Page' (60), 'Line Length' (80), and 'Character Column Width' (10). The 'Spacing' section contains four input fields: 'Blank Lines Between Rows' (0), 'Minimum Spaces Between Columns' (3), 'Blank Lines Between Levels' (3), and 'Spaces to Indent Subordinate Tables' (3). At the bottom of the dialog are buttons for 'Undo', 'Defaults', 'OK', 'Cancel', 'Apply', and 'Help'. The status bar at the very bottom indicates 'Ready'.

Section	Option	Value
Limits	Rows Per Table:	100000
	Lines Per Page:	60
	Line Length:	80
	Character Column Width:	10
Spacing	Blank Lines Between Rows:	0
	Minimum Spaces Between Columns:	3
	Blank Lines Between Levels:	3
	Spaces to Indent Subordinate Tables:	3

Limits

Set default limits for the output of the Report Process.

Rows per Table

Specify the maximum number of rows (1 to 99999999) that can be reported on during a single Report Process.

Lines per Page

Specify the maximum number of lines per page (1 to 999) for the report.

Line Length

Specify the maximum number of characters per line (1 to 999) for the report.

Character Column Width

Specify the maximum number of characters per column (1 to 999) for the report.

Spacing

Set default spacing preferences for the output of the Report Process.

Blank Lines Between Rows

Specify the number of blank lines to insert between each row in the report.

Minimum Spaces Between Columns

Specify the number of blank spaces to insert between each column in the report.

Blank Lines Between Levels

Specify the number of blank lines to insert between each level of related tables, when **Show Joins** is enabled, and related tables are joined. (Archive File Report only)

Spaces to Indent Subordinate Tables

Specify the number of blank spaces to indent rows from each subordinate joined table in the report. (Archive File Report only)

Chapter 9. Personal Options

You can use Personal Options to customize Optim for use at each workstation. Personal Options are recorded in the Windows Registry of the workstation.

For example, you can:

- Specify default data directories, set user-defined database logon and password information, and select other options to customize display features and message text.
- Provide defaults for the Schedule and Create utilities, and the Load, Edit, and Browse Processes.

Note: Product Option settings (site-level) supersede any conflicting Personal Option settings (user-level). For more information, refer to Chapter 8, “Product Options,” on page 219.

Configuring Personal Options

You can configure Personal Options using the Configuration program, or you can set options within Optim. In either case, you will use the Personal Options dialog.

Using the Configuration Program to Configure Personal Options

You can use the Configuration program to configure Personal Options when you first install and configure Optim.

1. Open the Configuration program.
2. In the main window, select **Configure Options** from the **Tasks** menu.
3. Specify an Optim Directory and click **Proceed**.
4. Click **Skip** on the Initialize Security/Change Security Administrator, Enable/Disable the Optim Server Feature, and Enable/Disable the Archive ODBC Feature dialogs to open the Specify Product Configuration File dialog.
5. Select **Create New File** or **Use Existing File**, verify the name of the Configuration File, and click **Proceed**.
6. On the Modify Product Options dialog, click **Proceed** to open the Modify Personal Options dialog.
7. Click the **Personal Options** button to open the Personal Options dialog.
8. Specify the necessary details on each tab in Personal Options.
9. Choose one of the following:
 - To close the Personal Options dialog without saving your changes, click **Cancel**.
 - To save your changes and continue using the Personal Options dialog, click **Apply**.
 - To save your changes and close the Personal Options dialog, click **OK** to return to the Modify Personal Options dialog.
10. Click **Proceed** to complete the process.

Configuring Personal Options within Optim

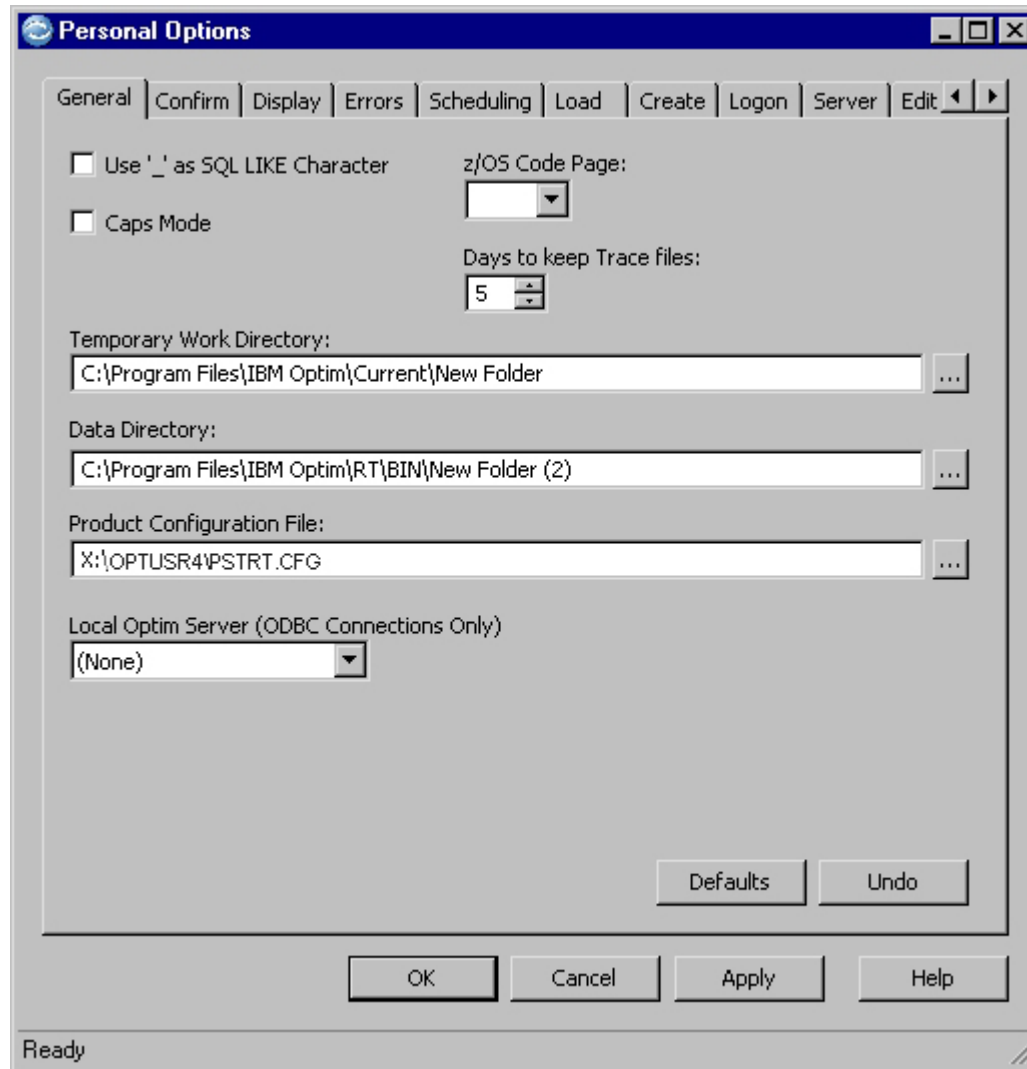
You can configure Personal Options within Optim after you have installed and configured Optim.

1. In the main window, select **Personal** from the **Options** menu.
2. On the Personal Options dialog, provide the necessary information on each tab.
3. Choose one of the following:
 - To close the Personal Options dialog without saving your changes, click **Cancel**.
 - To save your changes and continue using the Personal Options dialog, click **Apply**.

- To save your changes and close the Personal Options dialog, click **OK**.

Using the Editor

The Personal Options dialog allows you to customize Optim for the workstation.



Tabs

The tabs in the Personal Options dialog are described briefly in the following paragraphs. Detailed information is provided in each section of this chapter.

General

Identify the Temporary Work Directory, Data Directory, and the directory for the Product Configuration File used by the workstation. Options allow you to use the underscore as an SQL LIKE character, select the upper-case or lower-case default for selection criteria, establish the number of days to keep Trace Files, specify a default code page value, and choose whether to warn a user when a cascading delete or update may occur.

Confirm

Choose to display a confirmation prompt before definitions are deleted, files overwritten, or DDL lost.

Display

Choose options for data displays when editing data or using Point and Shoot, including the maximum number of rows fetched and the maximum number of entries in history and menu file lists. Also, set options to determine the default settings for Large Objects for the Access Definition.

Errors Select font characteristics for informational, warning, and error messages and the number of lines to display in the message bar.

Scheduling

Select options for using the Scheduling Monitor.

Load Provide the complete path and name of the executable used to access each DBMS loader.

Create Specify default options for creating database objects.

Logon Review logon information for each DB Alias in a selected Optim Directory. Connection and password information is stored in the workstation registry.

Server Provide User ID, password, and domain information to be used by the Optim Server (Server) when running actions remotely.

Edit Select options for browsing or editing database tables.

Browse

Select display options for browsing Archive, Extract, Control, or Compare Files. Set defaults for emphasizing differences between rows when browsing Compare Files.

Archive

Identify the default Archive Directory and Archive Index Directory and select options that apply when archiving data.

Removable Media

Provide default segment size values.

Actions

Set options for displaying tabs in Action Request Editors, printing Column Map procedures, and retaining reports.

Printer

Set printer, font, and language preferences for printing a request or definition.

Database

Select options for handling multi-byte round trip conversion errors, cascade deletes, and database connections. (For Sybase ASE, you can also specify whether to run in Unchained mode.)

Notify Specify default options and a list of addresses used for sending an email message when a request is processed, or only if a request succeeds or fails.

General Tab

Use the **General** tab to identify the Temporary Work Directory, Data Directory, and the directory for the Product Configuration File used by the workstation, and other defaults.

Use '_' as SQL LIKE Character

Select to use the underscore character to represent any single character in a pattern. For example, if **Use '_' as SQL LIKE Character** is selected, you can type PSTDEMO.M _ P in the pattern box on the Open an Access Definition dialog to list only Access Definitions with a name beginning with M and ending with P for the Identifier PSTDEMO. If you clear this check box, the underscore represents the underscore character.

Caps Mode

Select to convert all lower-case characters to upper case when you specify string literals in selection criteria, relationships, and Column Maps. If you clear this check box, characters display in upper case or lower case, exactly as entered.

z/OS Code Page

In an Optim process, you can use an Extract File created using the Optim z/OS Solution. Optim uses a code page to convert the mainframe file format from EBCDIC to ASCII. In the **z/OS Code Page** list, select a default value to be used if the Extract File does not contain a code page number.

Days to keep Trace files

Specify the number of days (2 to 30) to retain trace files in the temporary work directory. The default value is 5.

Trace files are useful for Optim to track processing. Trace file names are prefixed with PR0, followed by letters indicating the trace file type, and ended with a numeric extension (for example, PR0TOOL.123). The extension on the name of the trace file distinguishes one trace file from another of that type. Trace files are sequentially numbered .001 through .999, followed by .A00 through .Z99, as necessary. If more than 3,599 trace files of a single type are created and stored within the specified number of days, file names are reused, beginning with the first.

Note: Storage space limitations should be considered when deciding the number of days to retain the files.

Temporary Work Directory

Specify the complete path to the default directory in which you want to store internal work files and trace files. To select from your system directories, click the browse button.

Data Directory

Specify the complete path to the default directory in which you want to store Archive, Extract, Control, Compare, and Export Files, and other process files. To select from your system directories, click the browse button. The Data Directory serves as the default; you can specify a different directory path and file name on any process request.

Product Configuration File

Specify the complete path to the Product Configuration File. The file name has a .cfg extension. To select from your system directories, click the browse button. The Product Configuration File is created when you install Optim.

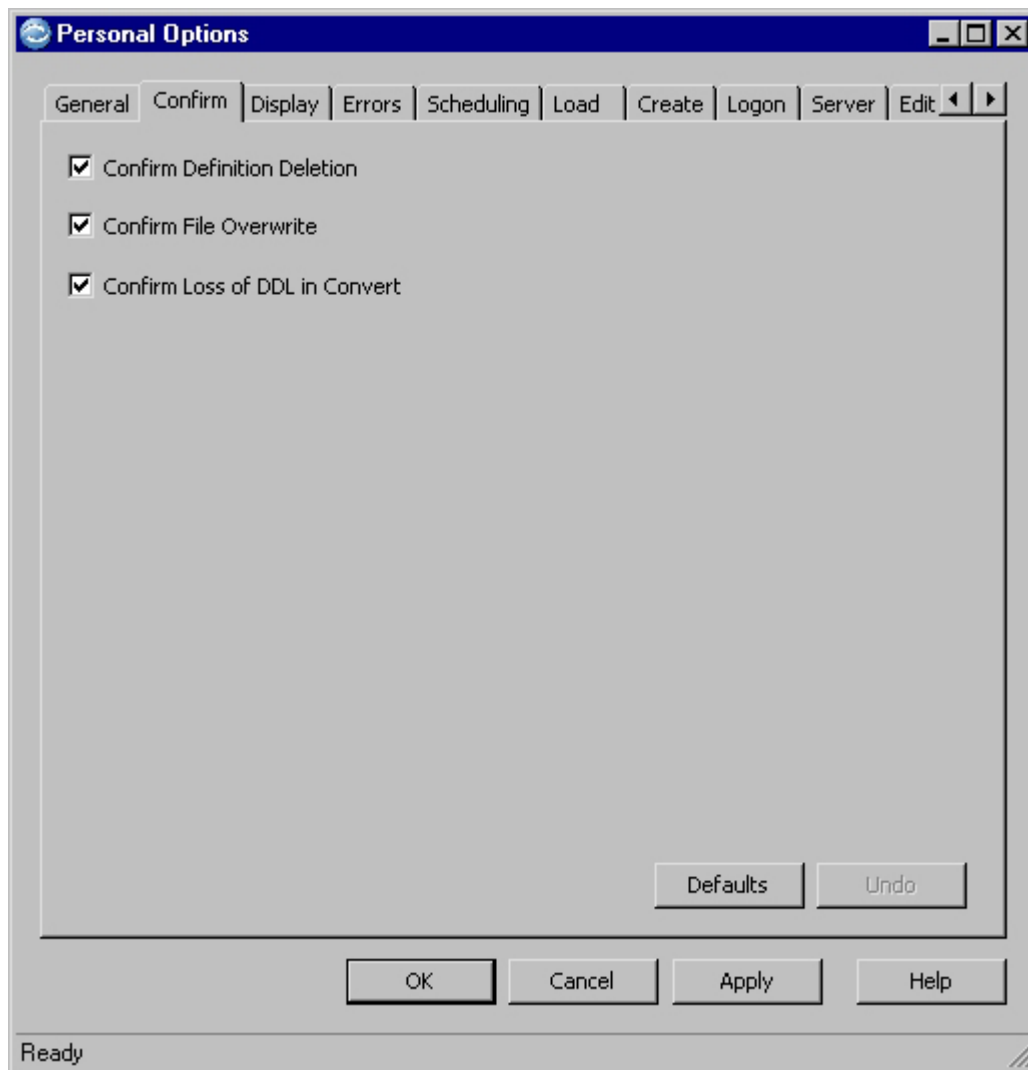
Local Optim Server (ODBC Connections Only)

To improve ODBC response times, select the name of the Server that runs on this machine. The ODBC Server will run locally and the Server will not be contacted, if an ODBC connection specifies this Server name, or if the ODBC interface selects an Archive File with this Server name in its Archive Directory entry.

Note: Do not use this setting if accessing archived data on a backup device.

Confirm Tab

Use the **Confirm** tab to choose whether a confirmation dialog is displayed before the execution of a process that results in loss of data.



Confirm Definition Deletion

Select to display a confirmation dialog before you delete a definition or process request from the Optim Directory. Selecting this check box helps prevent deleting a request or definition accidentally.

Confirm File Overwrite

Select to display a confirmation dialog before you overwrite an existing file (Archive File, Extract File, Control File, Compare File, or Export File).

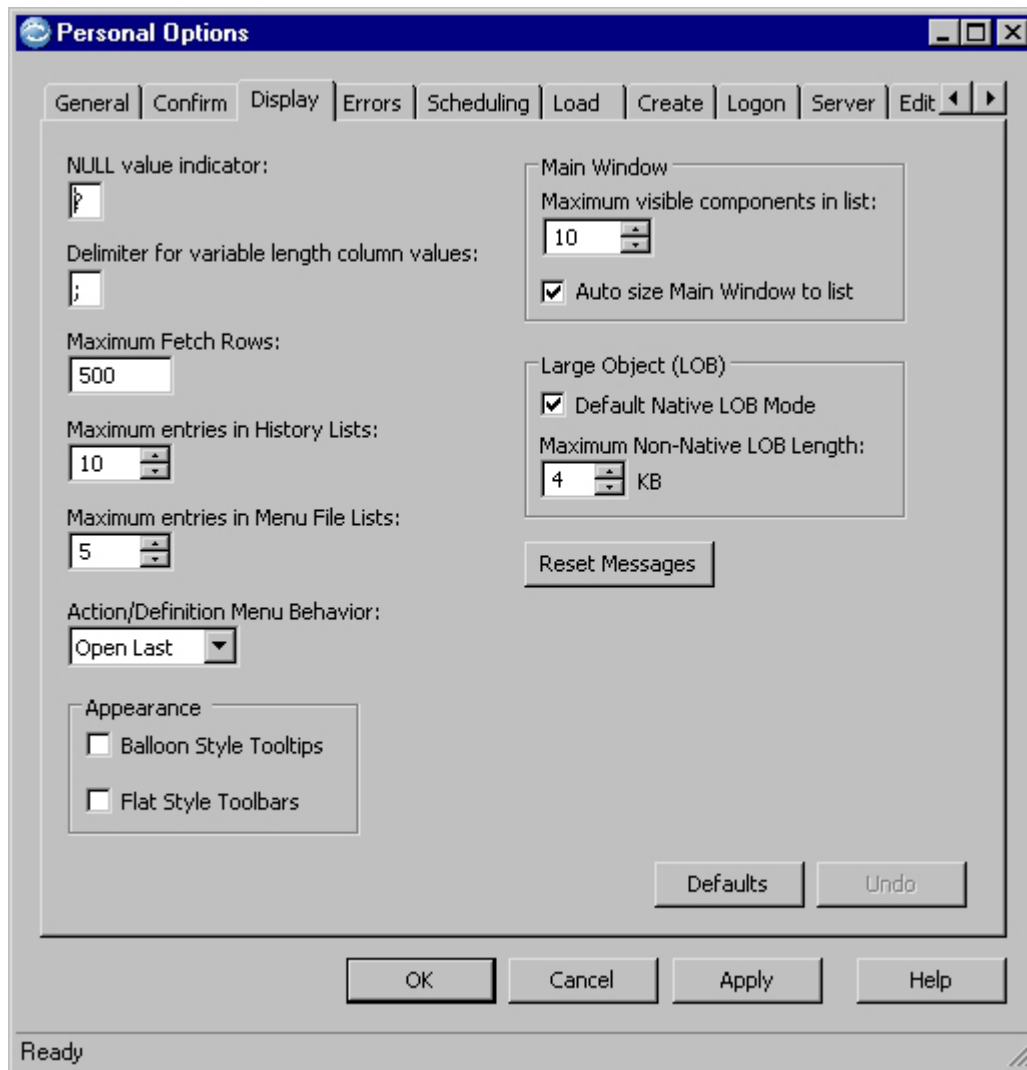
Note: If you select this check box, a confirmation dialog opens before you run a process. However, this confirmation does not display for a process request that is scheduled or run using the Command Line Interface.

Confirm Loss of DDL in Convert

Select to display a confirmation dialog during a Convert Process that can result in the loss of DDL statements. The confirmation dialog is not displayed for a scheduled process request.

Display Tab

Use the **Display** tab to select preferences for displaying information.



NULL value indicator

Enter a character to represent a NULL value. The question mark (?) is the default. Although you can choose any character to represent a NULL value, an infrequently used character is best.

Delimiter for variable length column values

Enter a character to delimit variable length column values that have trailing blanks. The semicolon (;) is the default. Although you can choose any character as a delimiter, an infrequently used character that differs from the NULL value indicator is best.

Maximum Fetch Rows

Specify the maximum number of rows from a single table that can be displayed when you browse or edit table data or use Point and Shoot. You can enter a number from 1 through the site maximum, specified on the Product Options dialog. The default value is 500.

Maximum entries in History Lists

Specify the maximum number of recently selected items (1 to 20) displayed in a drop-down list. For example, the Extract File box in a request editor, where you can click the down arrow to view a list of the most recently used Extract Files.

Maximum entries in Menu File Lists

Specify the maximum number of items (1 to 20) displayed below the **File** menu commands in an editor. For example, a list of the most recently opened definitions appears on the **File** menu in the Access Definition Editor.

Action/Definition Menu Behavior

Click the down arrow to select the default mode for opening the action or definition editors from the **Actions** or **Definitions** menu in the main window.

Open Last

Opens the last edited request in the selected editor. This is the default.

Open New

Opens a new, untitled request in the selected editor.

Appearance

Options for displaying tooltips and toolbars on dialogs and editors in Optim.

Balloon Style Tooltips

Controls the appearance of the tooltips. Select the check box to choose balloon-style. Clear the check box to choose flat-style (default).

Flat Style Toolbars

Controls the appearance of the toolbars. Select the check box to choose flat-style. Clear the check box to choose 3D style (default).

Main Window

Options for displaying the list of active dialogs and editors in the main window. As you open each editor or dialog, the main window expands to list the active editors and dialogs. To recall an active editor or dialog, double-click the item in the list.

Maximum visible components in list

Specify the maximum number of active editors or dialogs (5 to 99) displayed in the main window. The default value is 10. If the number of active editors and dialogs exceeds the maximum, you can scroll the list. (If fewer editors or dialogs are in use, the bottom of the list is blank.)

Auto size Main Window to list

Select to automatically resize the main window as editors and dialogs are added to the list. If you clear this check box, the main window is sized to display the maximum number of editors and dialogs that can be listed.

Large Object (LOB)

Default Native LOB Mode

Select this check box to set the default for the **Native LOB Mode** check box on the **Columns** tab of the Table Specifications dialog, available through the Access Definition Editor. You can use the check box on the Table Specifications dialog when preparing an Access Definition for use with Edit. When editing, the check box designates whether to start the native application associated with an LOB, or to process as a VarChar or VarBinary data type.

Maximum Non-Native LOB Length

Specify the maximum length of data to retrieve from a database for an LOB processed as a VarChar or VarBinary data type when using the Table Editor in Edit. Select a value from 1 KB through 32 KB.

Note: The setting of the **Native LOB Mode** check box on the **Columns** tab of the Table Specifications dialog (available through the Access Definition Editor) determines whether an LOB is processed as Native or Non-Native.

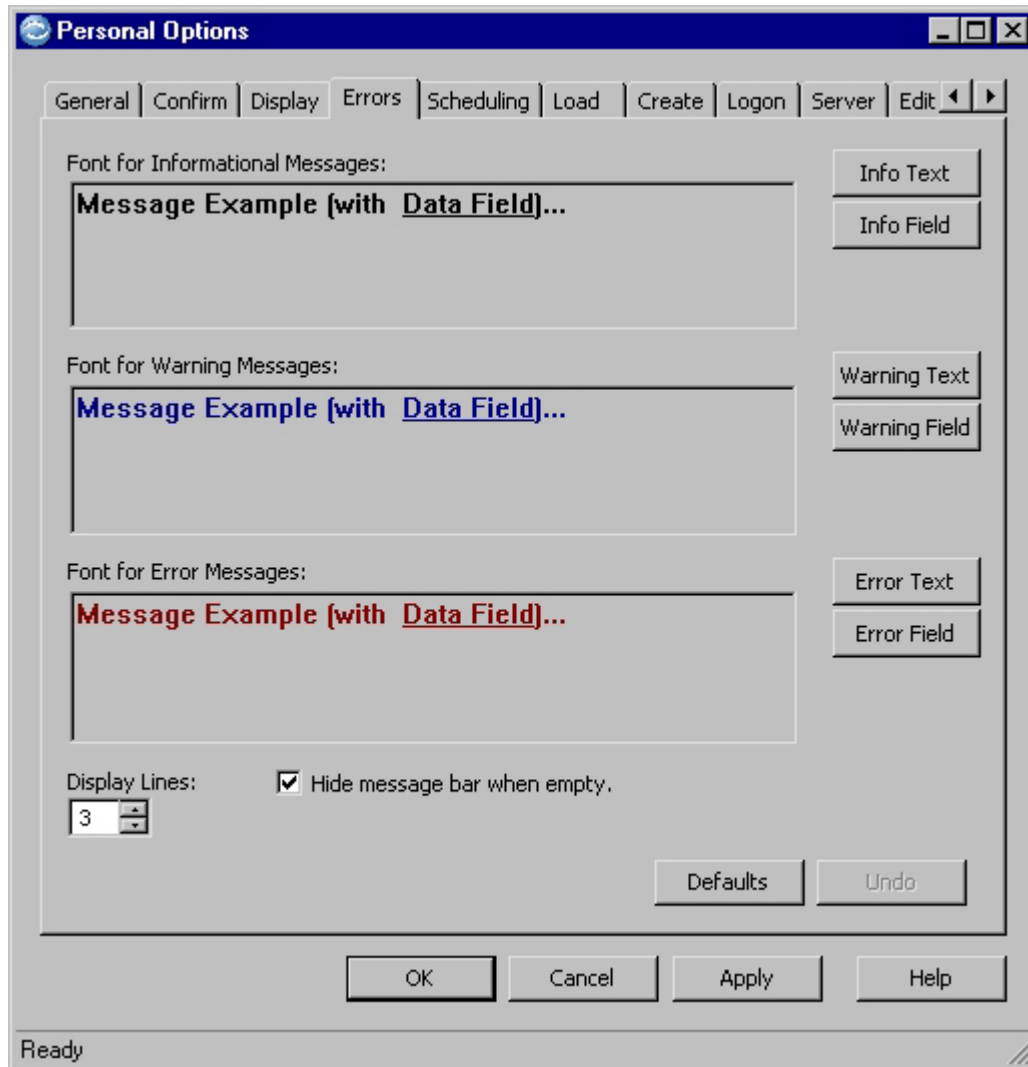
An LOB truncates when the size of the LOB exceeds the Maximum Non-Native LOB Length setting, and appears in the Table Editor as a protected cell with a cross-hatched pattern.

Reset Messages

Click **Reset Messages** to reset system messages. Message dialogs provide information or warnings. You can also choose *not* to display the message again. **Reset Messages** resets the option to display these message dialogs, when appropriate.

Errors Tab

Use the options on the **Errors** tab to set preferences for the display of error messages.



The default fonts for message text and data fields are shown in each of the font message boxes. To open the Windows Font dialog to select font attributes, click the command buttons for text or fields. To modify the font for text messages, click **Text**. To modify the font for data fields noted in message text, click **Field**.

Font for Informational Messages

Informational messages are not critical; for example, messages that ask whether information should be saved when a dialog is closed.

Info Text

Specify font characteristics for the informational message text. The default is System, 10 point, Bold, Black.

Info Field

Specify font characteristics for the data referenced in an informational message. The default is System, 10 point, Bold, Underline, Maroon.

Font for Warning Messages

Warning messages indicate serious, but not critical conditions. A warning message does not interrupt an action, but may indicate that you should reevaluate the current action.

Warning Text

Specify font characteristics for the warning message text. The default is System, 10 point, Bold, Maroon.

Warning Field

Specify font characteristics for the data referenced in a warning message. The default is System, 10 point, Bold, Underline, Maroon.

Font for Error Messages

Error messages indicate critical conditions and interrupt the current action. A problem presented in an error message must be addressed before the attempted action can proceed. Error messages can appear in pop-up dialogs, but usually display in the message bar at the bottom of a dialog.

Error Text

Specify font characteristics for the error message text. The default is System, 10 point, Bold, Navy.

Error Field

Specify font characteristics for the data referenced in an error message. The default is System, 10 point, Bold, Underline, Navy.

Display Lines

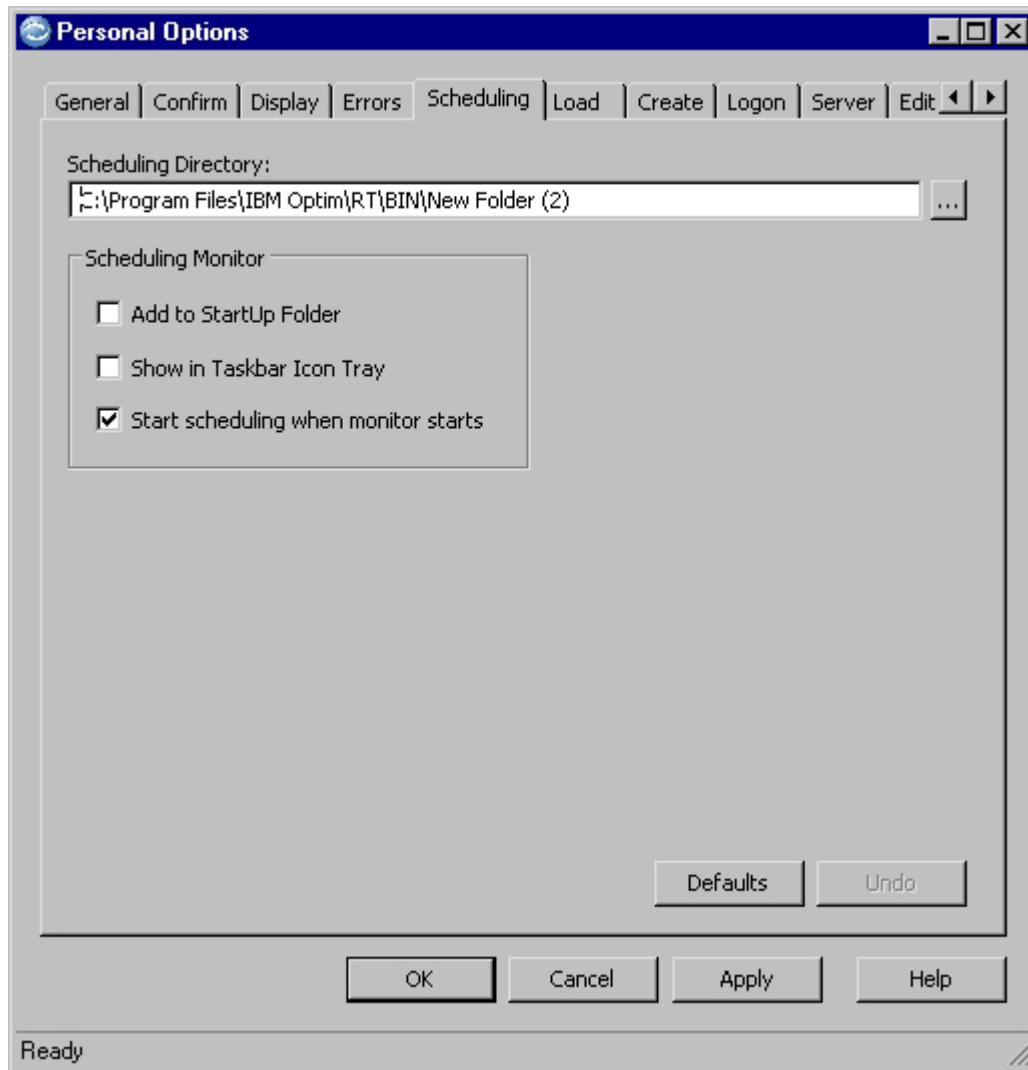
Specify the maximum number of lines (3 to 9) to display in the message bar for any type of message.

Hide message bar when empty

Select this check box to hide the message bar when there are no informational, warning, or error messages to display. If you clear this check box, the message bar appears at the bottom of each editor or dialog at all times.

Scheduling Tab

Use the options on the **Scheduling** tab to specify a default directory for Optim to store process requests, and to set options for the Scheduler.



Scheduling Directory

Enter the full path to the default directory for schedule files. To select from your system directories, click the browse button. Each user should have a unique directory for schedule files.

Scheduling Monitor

Select options for using the Scheduling Monitor. The Scheduling Monitor must be active for scheduled jobs to be processed.

Add to StartUp Folder

Select this check box to add the Scheduler to the group of programs that start automatically when you start Microsoft Windows.

Show in Taskbar Icon Tray

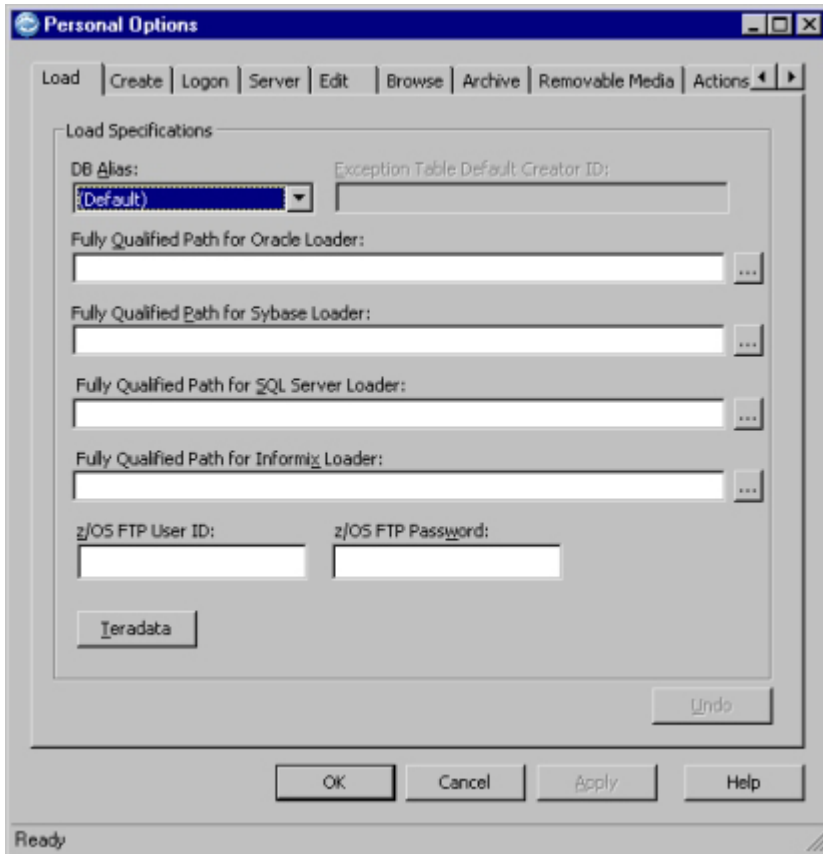
Select this check box to display the Scheduler icon in the Microsoft Windows task bar icon tray, instead of as a button on the taskbar.

Start scheduling when monitor starts

Clear this check box to prevent starting scheduled jobs immediately when the Schedule Monitor starts.

Load Tab

Use the options on the **Load** tab to set specifications for a Load Process.



Load Specifications

Specify the complete path and name of the executable to access each DBMS Loader that can be used with a Load Request.

DB Alias

Select [Default] to enter the path and name of the Loader executable file for each DBMS type. If you have more than one version of a particular DBMS type, you can enter the unique loader specification for each version. Click the down arrow to select the specific DB Alias, then enter the appropriate path and name of the Loader executable file for the particular DBMS version.

Exception Table Default Creator ID

Specify a default Creator ID for exception tables (DB2 and Oracle) or violation tables (Informix). This field is available only when you select a DB Alias for a DB2, Oracle, or Informix database.

Fully Qualified Path for DBMS Loader

Specify the directory path and program name for the specific DBMS loader. Consult your DBMS documentation for the name of the loader program. To select from your system directories, click the browse button.

z/OS FTP User ID

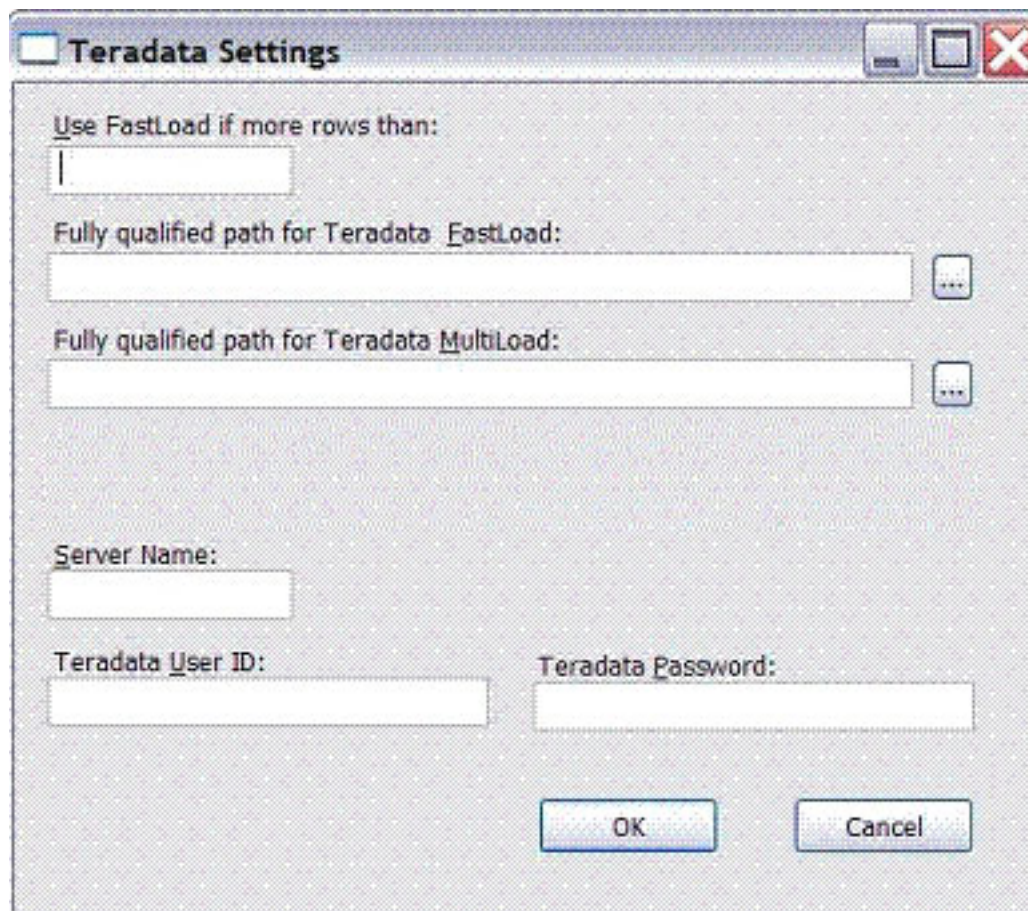
Provide the default user ID for the z/OS FTP server, used when uploading files to the z/OS machine during the Load Process. This option is available when you select the (Default) or a DB2 DB Alias. You can override the user ID in the Load Request.

z/OS FTP Password

Provide the password for the default z/OS FTP server user ID. This option is available when you select the (Default) or a DB2 DB Alias. You can override the password in the Load Request.

Teradata

Select to provide settings for the Teradata loader. This option is available when you select a DB2 DB Alias for a Teradata database. The Teradata Settings panel displays:

The image shows a Windows-style dialog box titled "Teradata Settings". It contains several input fields and buttons. At the top, there is a checkbox labeled "Teradata Settings". Below it, the text "Use FastLoad if more rows than:" is followed by a text input field. Then, "Fully qualified path for Teradata FastLoad:" is followed by a text input field and a browse button (three dots in a square). Below that, "Fully qualified path for Teradata MultiLoad:" is followed by a text input field and a browse button. Further down, "Server Name:" is followed by a text input field. Then, "Teradata User ID:" and "Teradata Password:" are each followed by a text input field. At the bottom, there are two buttons: "OK" and "Cancel".

Use FastLoad if more rows than

Row count to determine whether FastLoad or MultiLoad is used. Allowable values are 0 to 999,999,999. If you specify 0 or do not specify a value, MultiLoad is used. For any other value, FastLoad is used if the row count of the load file is greater than the value you specify for **Use FastLoad if more rows than**.

Fully Qualified Path for Teradata FastLoad

Provide the directory path and program name for the Teradata FastLoad. Consult your Teradata documentation for the name of the loader program. To select from your system directories, click the browse button.

Fully Qualified Path for Teradata MultiLoad

Provide the directory path and program name for the Teradata MultiLoad. Consult your Teradata documentation for the name of the loader program. To select from your system directories, click the browse button.

Server Name

Name of the Teradata server.

Teradata User ID

Teradata User ID for the user creating the Load Request.

Teradata Password

Teradata password for the user creating the Load Request.

Create Tab

Use the options on the **Create** tab to set defaults for creating objects. Note that you can establish as many as three layers of default settings for the creation of database objects, in addition to target system defaults. The default settings determine the values displayed in the Object List for the Create Utility and can be overridden at the object level by editing the list.

At the broadest level, DB Alias settings establish defaults for creating objects in the associated database. If desired, you can provide Personal Options settings, as described in the following text, for a user or group of users that override some or all DB Alias settings. A third level of optional defaults apply at the processing level to override Personal Options and DB Alias settings. Use the options on the **Create** tab to set second-level defaults for the Create Utility.

The screenshot shows the 'Personal Options' dialog box with the 'Create' tab selected. The 'DB Alias' is set to 'DBMS'. Under 'Object Name Highlighting', the 'Limit' is 1000, 'Confident' is Blue, and 'Uncertain' is Yellow. Checkmarks are present for 'Compile error Drop', 'Replace UDTs', and 'DB2 UDB for z/OS Current Rules: DB2'. The 'Tables' sub-tab is active, showing 'Default Database' as an empty field, 'Allocation Percent' as 100, 'Use default database' as unchecked, 'Default Tablespace' as '<DEFAULT>', and 'Use default tablespace' as checked. At the bottom are 'OK', 'Cancel', 'Apply', and 'Help' buttons. A 'Ready' status bar is at the very bottom.

Personal Options

General | Confirm | Display | Errors | Scheduling | Load | **Create** | Logon | Server | Edit | Browse | Archive | Rem...

DB Alias: DBMS

Object Name Highlighting
Limit: 1000 Confident: Blue Uncertain: Yellow

☒ Compile error Drop
☒ Replace UDTs
☒ DB2 UDB for z/OS Current Rules: DB2

Tables | Indexes | Synonyms | Triggers

Default Database: Allocation Percent: 100
☐ Use default database

Default Tablespace
<DEFAULT>
☒ Use default tablespace

Defaults Undo

OK Cancel Apply Help

Ready

DB Alias

Specify the DB Alias that identifies the database in which you want to create database objects. To select from a list, click the down arrow. Specify default options for creating different types of database objects on each corresponding tab.

Compile error Drop

Select this check box to automatically drop any Oracle object that causes a compile-type error during the Create Process. If you clear this check box and compile-type errors occur, you must interrupt the Create Process to drop the object before continuing.

This feature applies to Oracle compile-type errors that may occur on certain database objects: functions, packages, package bodies, procedures, triggers, and views. (The Create Process can create these objects, but they may not be functional.) Select this check box to correct possible problems in the Review SQL dialog before performing the Create Process.

Replace UDTs

Select this check box to replace table-type column references to User Defined [data] Types with base column data types in any generated DDL. When you clear this check box, references to UDTs are preserved in generated DDL. (This check box is available only when you select a DB Alias for a DB2, Sybase ASE, or SQL Server database.)

Note: Clear this check box if you want UDT references in the generated DDL.

DB2 UDB for z/OS Current Rules: DB2

Select this check box to require the user (i.e., Create and DDL) to create and delete LOB tablespaces, AUX tables, and unique Indexes. When you clear this check box, DB2 UDB for z/OS automatically creates and deletes LOB tablespaces, AUX tables, and unique Indexes. This check box is selected by default.

Object Name Highlighting

Select a font color to highlight object name changes in the SQL statements shown on the Review SQL dialog before creating those objects in the target database. During the Create Process, object names (specified in the Table Map) are translated to be appropriate for the target database. This feature applies to creating text type database objects: functions, packages, package bodies, procedures, triggers, and views.

Limit When creating a large number of objects, highlighting object names in color can affect the speed of the process. Specify the maximum number of created objects to highlight in color (i.e., if the number of objects to create exceeds the limit you specify, colorization is not used). The default is 1000.

Confident

Select a font color to highlight object name changes that are reasonably confident. Accept the default color (blue) or click the down arrow to select a different color.

Uncertain

Select a font color to highlight object name changes that may require verification because of the way different DBMSs use object names. Accept the default color (yellow) or click the down arrow to select a different color.

Create — Tables Tab

Use the **Tables** tab to specify the default database (for DB2 z/OS). Specify a default tablespace (segment, filegroup, or dbspace) for creating database objects. Specify an allocation percent to adjust SQL storage related parameters (for Oracle and DB2 z/OS).

Default Database

Enter the name of the default database for creating tables. To select from a list, click the down arrow. This option is available only if you are using DB2 z/OS. A single DB Alias in Optim can identify more than one database in DB2 z/OS.

Use default database

Select this check box to use the default database for creating tables. If you clear this check box, the Create Utility attempts to use the source database from the Source File. However, if the source database does not exist on the target system, the Create Utility uses the default database.

Default...

Enter the name of the default tablespace (segment, filegroup, or dbspace) for creating tables. To select from a list, click the down arrow. If you select <Default>, the default set in the database is used.

Use default tablespace

Select this check box to use the default tablespace (segment, filegroup, or dbspace) for creating tables. If you clear this check box, the Create Utility attempts to use the tablespace (segment, filegroup, or dbspace) in the Source File. However, if the source does not exist on the target system, the Create Utility uses the default.

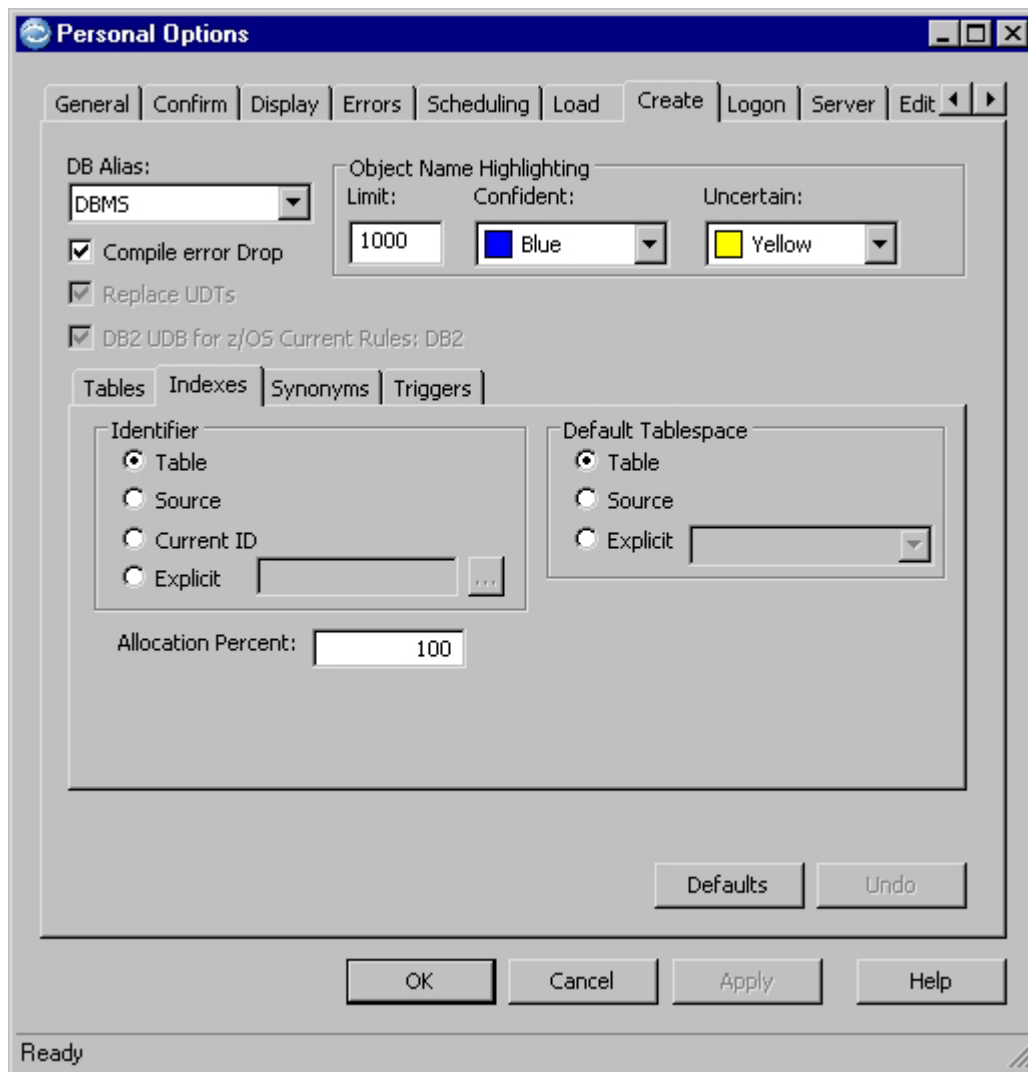
Allocation Percent

Enter a percent (0 to 999) to adjust SQL storage-related parameters for the Create Utility. The default is 100. Allocation percent is available for creating tables and indexes in Oracle and creating indexes in DB2 z/OS.

Target SQL is generated based on the values of the objects in a Source File. If you specify zero (0), the storage-related clause in the SQL statement is omitted. Using any value, other than zero, results in a percentage of the source value being used in the target clause.

Create — Indexes Tab

Use the **Indexes** tab to select a default identifier for creating new indexes. Specify an allocation percent to adjust SQL storage-related parameters (for Oracle and DB2 z/OS). Specify the default tablespace (segment, filegroup, or dbspace) for creating indexes.



Identifier

Specify the default identifier for new indexes based on the identifier from one of the following:

Table Use the identifier from a corresponding target table as the default for new indexes.

Source

Use the identifier from the source index as the default for new indexes.

Current ID

Use the current SQLID (User ID) as the default for new indexes.

Explicit

Use an explicit identifier as the default for new indexes. If you select this option, you must specify an explicit identifier (1 to 64 characters). To select from a list, click the browse button.

Allocation Percent

Enter a percent (0 to 999) to adjust SQL storage-related parameters for the Create Utility. The default is 100. Allocation percent is available for creating tables and indexes in Oracle and creating indexes in DB2 z/OS.

Target SQL is generated based on the values of the objects in a Source File. If you specify zero (0), the storage-related clause in the SQL statement is omitted. Using any value, other than zero, results in a percentage of the source value being used in the target clause.

Default . . .

Specify a default tablespace (segment, filegroup, or dbspace) for creating new indexes, based on one of the following:

Table Create an index in the same tablespace (segment, filegroup, or dbspace) as the owning table.

Source

Create an index in the same tablespace (segment, filegroup, or dbspace) as the index referenced in the Source File.

Explicit

Create an index in a particular tablespace (segment, filegroup, or dbspace). If you select this option, you must specify the appropriate default. If you select <Default>, the default set in the database is used.

Buffer Pool

The buffer pool (e.g., BP1) that is to be used when creating an Index. You can enter a specific value for the buffer pool or select a value from the list. (**Buffer Pool** is displayed only for DB2 z/OS.)

The list displays any index buffer pools already specified for this DB Alias (i.e., on the **Index Defaults** tab of the DB Alias Editor), as well as the following:

<DEFAULT>

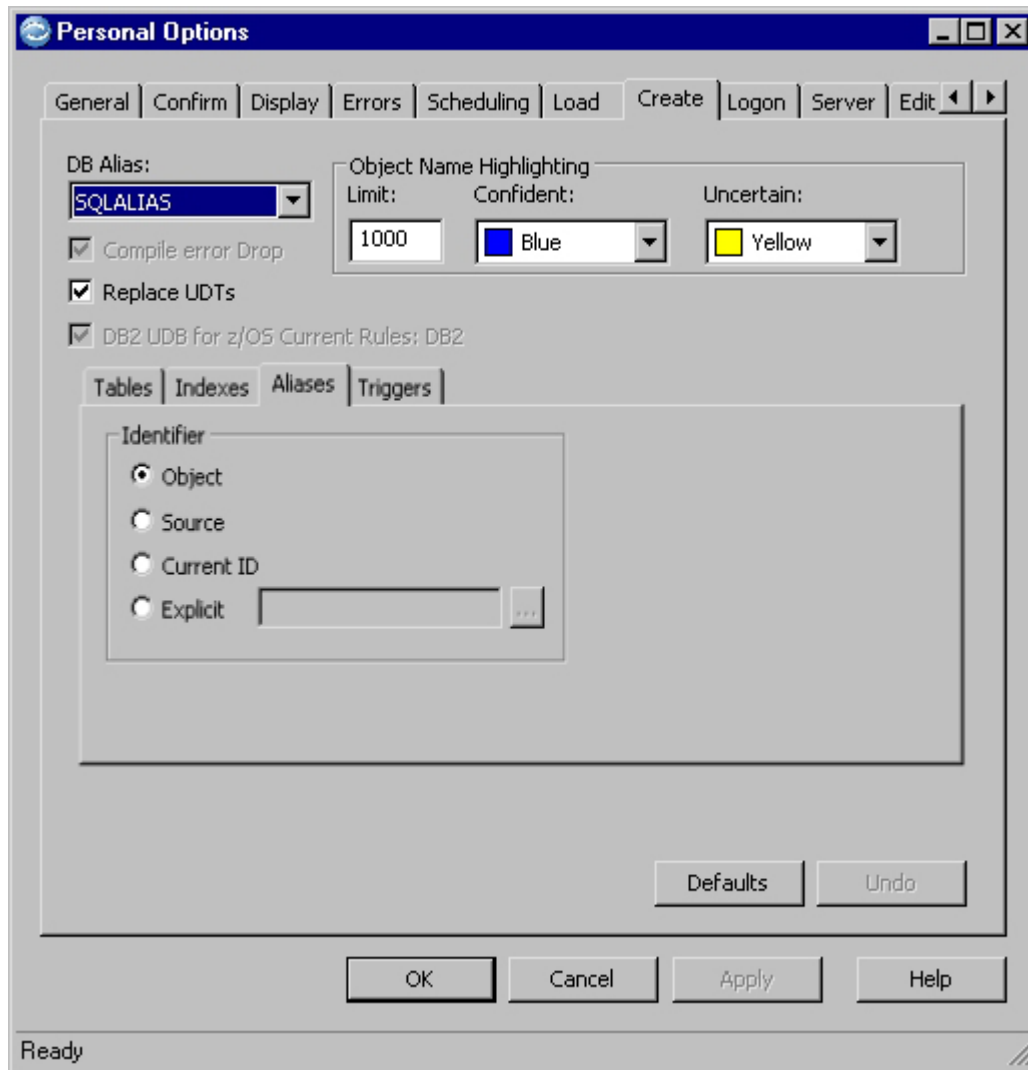
Select to use the default buffer pool specified by DB2 z/OS. When creating an index, Optim does not generate a BUFFERPOOL clause in the Create statement.

<SOURCE>

Select to use the same buffer pool as the index for the source Archive or Extract File.

Create — Aliases Tab

Use the **Aliases** tab to select default options for creating new aliases. You can specify a default alias when you use DB2 LUW or DB2 z/OS.



Identifier

Specify the default identifier for new aliases based on the identifier from one of the following:

Object

Use the identifier from the corresponding target object as the default for new aliases. For aliases, the corresponding target object is the table, view, or alias referenced in the alias.

Source

Use the identifier from the source alias as the default for new aliases.

Current ID

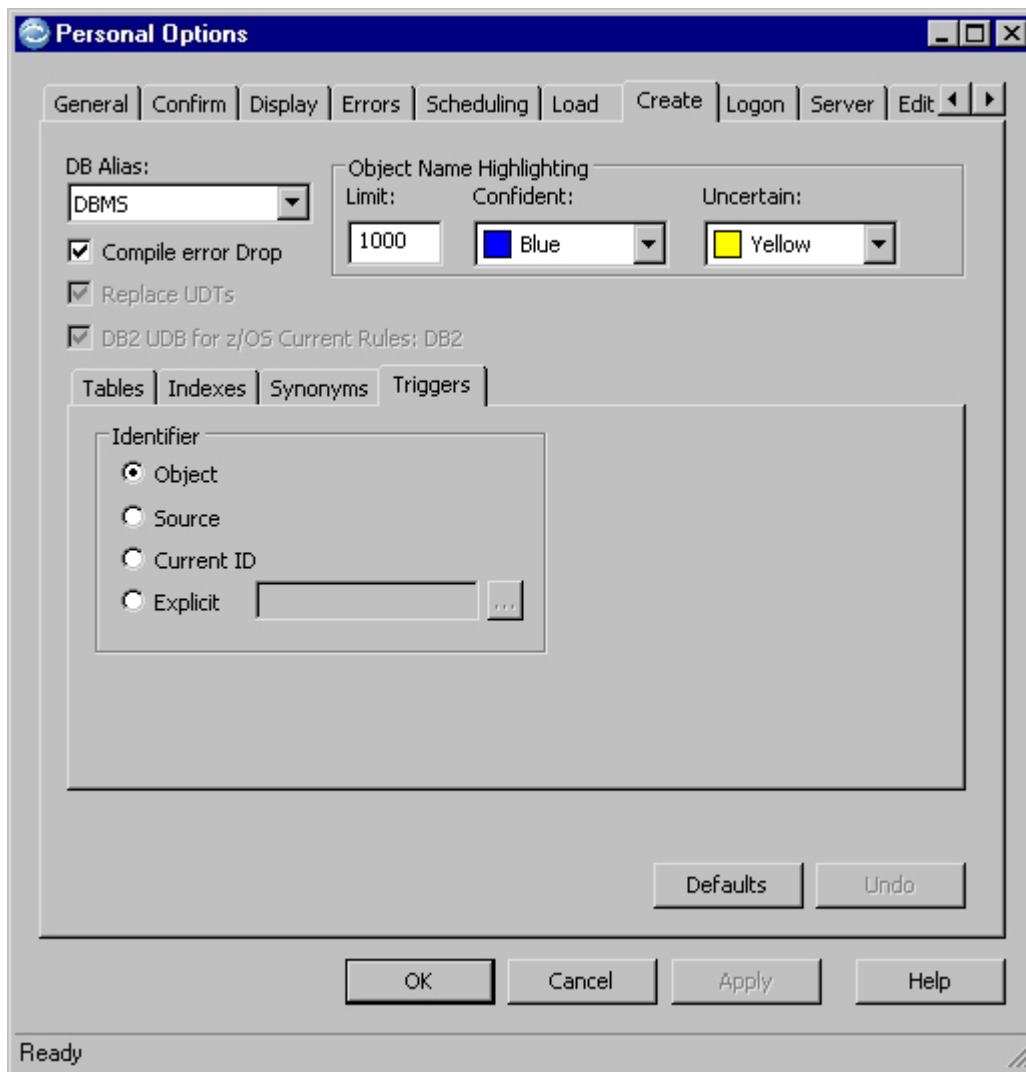
Use the current SQLID (User ID) as the default for new aliases.

Explicit

Use an explicit identifier as the default for new aliases. If you select this option, you must specify an explicit identifier (1 to 64 characters). To select from a list, click the browse button.

Create — Triggers Tab

Use the **Triggers** tab to select default options for creating new triggers. You can specify a default trigger when you use DB2 LUW, Oracle, Sybase ASE, SQL Server, or Informix.



Identifier

Specify the default identifier for new triggers based on the identifier from one of the following:

Object

Use the identifier from a corresponding target object as the default for new triggers. For triggers, the corresponding target object is the table referenced in the trigger.

Source

Use the identifier from the source trigger as the default for new triggers.

Current ID

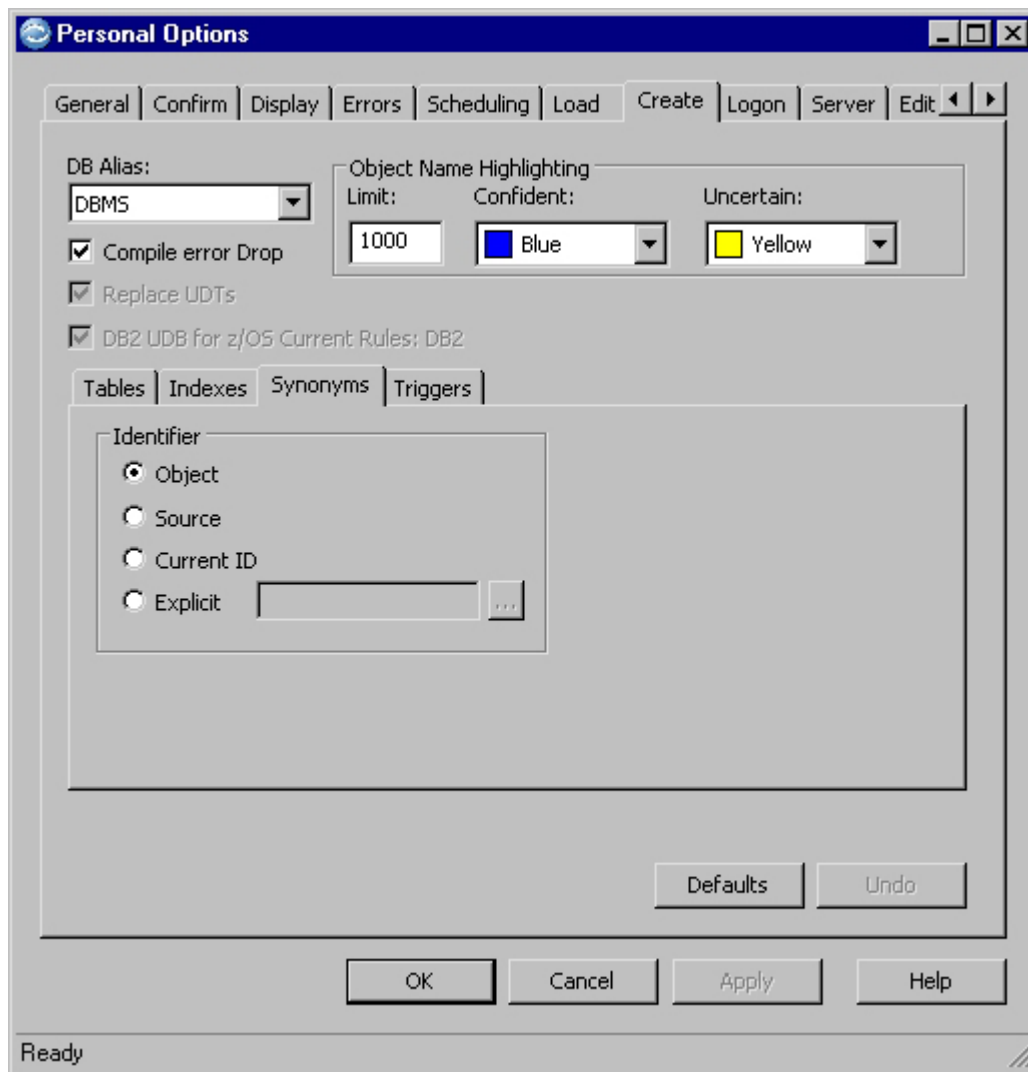
Use the current SQLID (User ID) as the default for new triggers.

Explicit

Use an explicit identifier as the default for new triggers. If you select this option, you must specify an explicit identifier (1 to 64 characters). To select from a list, click the browse button.

Create — Synonyms Tab

Use the **Synonyms** tab to select default options for creating new synonyms. You can specify a default synonym when you use Oracle or Informix.



Identifier

Specify the default identifier for new synonyms based on the identifier from one of the following:

Object

Use the identifier from a corresponding target object as the default for new synonyms. For synonyms, the corresponding target object is the table, synonym, function, package, package body, procedure, sequence, trigger, or view referenced in the synonym.

Source

Use the identifier from the source synonym as the default for new synonyms.

Current ID

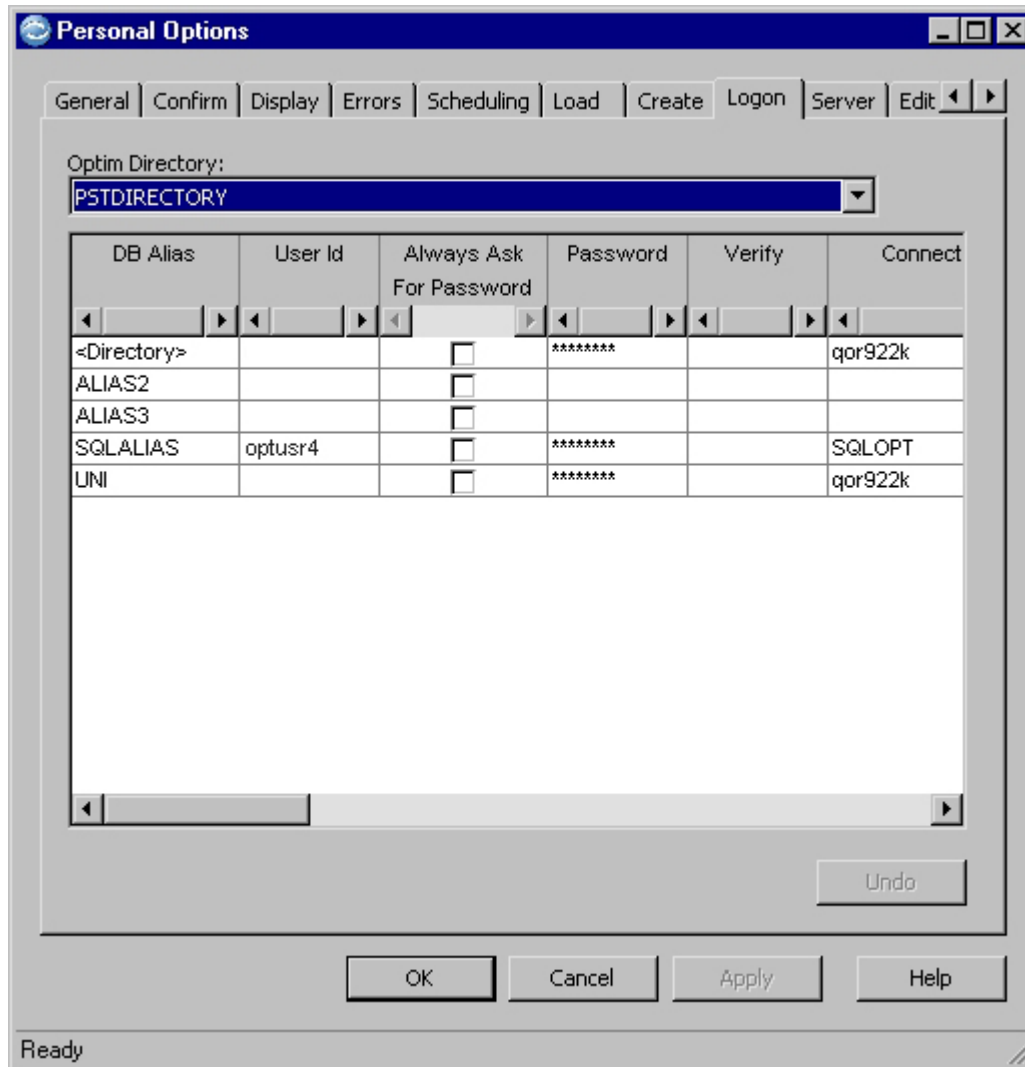
Use the current SQLID (User ID) as the default for new synonyms.

Explicit

Use an explicit identifier as the default for new synonyms. If you select this option, you must specify an explicit identifier (1 to 64 characters). To select from a list, click the browse button.

Logon Tab

Use the options on the **Logon** tab to set logon and password preferences.



Optim Directory

Select the name of the Optim Directory to display the corresponding logon information. If you have access to more than one Optim Directory, click to select from a list.

Grid Details

The logon information corresponding to the selected Optim Directory includes the following details:

DB Alias

List of DB Alias names you can access.

User ID

Identifier (1 to 30 characters) that allows you to access a particular DB Alias. User IDs are usually assigned and maintained by the database administrator.

Note: If you are using Informix, you must specify the User ID in upper case for an ANSI database and in lower case for a non-ANSI database.

Always Ask For Password

Select to display the logon dialog every time you access a different Optim Directory or DB Alias. If selected, the **Password** and **Verify** entries are not required.

If you clear the check box, the logon dialog appears the first time you access a different Optim Directory or DB Alias. After you provide a password for an Optim Directory or DB Alias, it is not necessary to provide a password again. (This check box also appears on the Logon dialog.)

Password

Enter a password (1 to 30 characters) that allows you to access a particular database using the specified DB Alias. For security reasons, your password displays as a series of asterisks (****). For versions of DB2 earlier than 6.1, passwords are limited to 8 characters.

Verify Enter the password again for verification. For security reasons, your password displays as a series of asterisks (****).

Connection String

Connection string used by Optim to access a particular database using the specified DB Alias.

Always Fail Connection

Select to automatically cancel the logon prompt for a DB Alias that you are not authorized to access or that you choose not to access.

If you clear this check box, a logon dialog displays any time you do not have immediate access to a particular DB Alias. (You cannot modify the check box associated with the Optim Directory.)

Description

Text that describes the purpose of the logon record.

Test the Connection

You can test the DB Alias connection to verify the validity of the DB Alias logon information. To perform the test, right-click in a grid cell and select **Test Connection** from the shortcut menu. A message displays in the Status bar at the bottom of the dialog indicating the success or failure of the test. If you selected the **Always Ask For Password** check box, you are prompted to enter the password.

Server Tab

Use the **Server** tab to provide credentials that may be used when the optional Server is enabled and tasks are delegated to the Server. The Server can be configured to use these credentials for access to the Optim Directory, certain DB Aliases, or the working files.

The screenshot shows a Windows-style dialog box titled "Personal Options". It has a tabbed interface with tabs for General, Confirm, Display, Errors, Scheduling, Load, Create, Logon, and Server. The "Server" tab is currently selected. Inside the tab, there are four input fields: "Server:" with a dropdown menu showing "(Default)", "User Id:" with a text box, "Password:" with a text box, and "Domain:" with a dropdown menu. Below these fields is a checkbox labeled "Always Ask for Password" which is unchecked. A note states: "User Id, Password, and Domain must be blank to use the (Default) logon". At the bottom of the tab are two buttons: "Check Logon" and "Undo". At the bottom of the dialog box are four buttons: "OK", "Cancel", "Apply", and "Help".

Server

Select the name of the Server for which to enter User ID, Password, and Domain information. Click the down arrow to select from the list of Servers configured in Product Options, or select [Default] to use the same information for all Servers.

User ID

Enter the User ID used by the Server when performing tasks.

Note: The User ID must have SeBatchLogonRight privileges, or be a member of a “well-known group” with the appropriate authority. This privilege must be granted at the local level for each Server machine.

Password

Enter the password corresponding to the specified User ID.

Domain

Enter the Domain name used to run actions remotely, or for remote input/output files.

Always Ask for Password

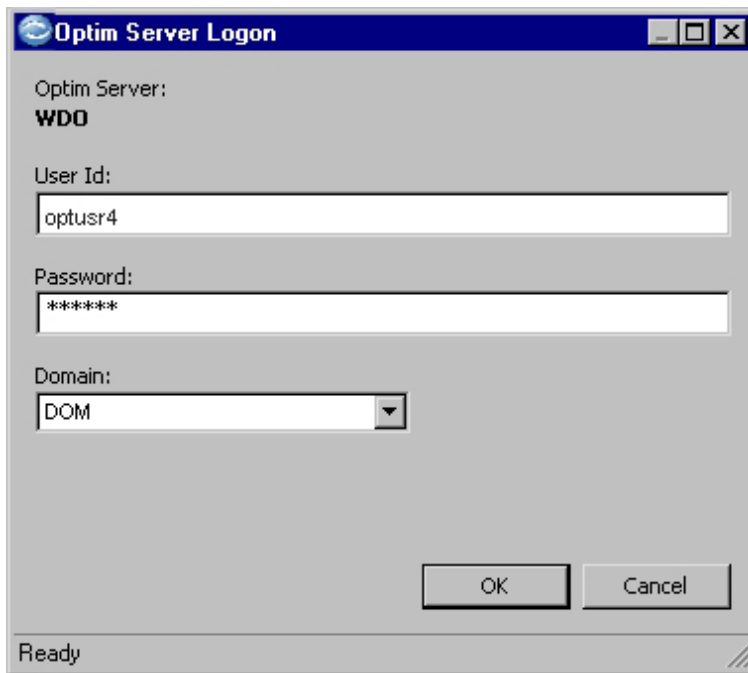
Select to display the Server Logon dialog whenever the Server is used for remote processing calls. When selected, **Password** is not available.

Check Logon

Click **Check Logon** to verify that the Server can log on with the information provided.

Optim Server Logon Dialog

If you select the **Always Ask for Password** check box, or if the default logon information is incorrect, the Optim Server Logon dialog is displayed.

The image shows a Windows-style dialog box titled "Optim Server Logon". It has a blue title bar with a small icon on the left and standard window controls (minimize, maximize, close) on the right. The main area is light gray and contains the following fields: "Optim Server:" with the text "WDO" below it; "User Id:" with a text box containing "optusr4"; "Password:" with a text box containing "*****"; and "Domain:" with a dropdown menu showing "DOM". At the bottom right are "OK" and "Cancel" buttons. A status bar at the very bottom says "Ready".

Always Ask for Password

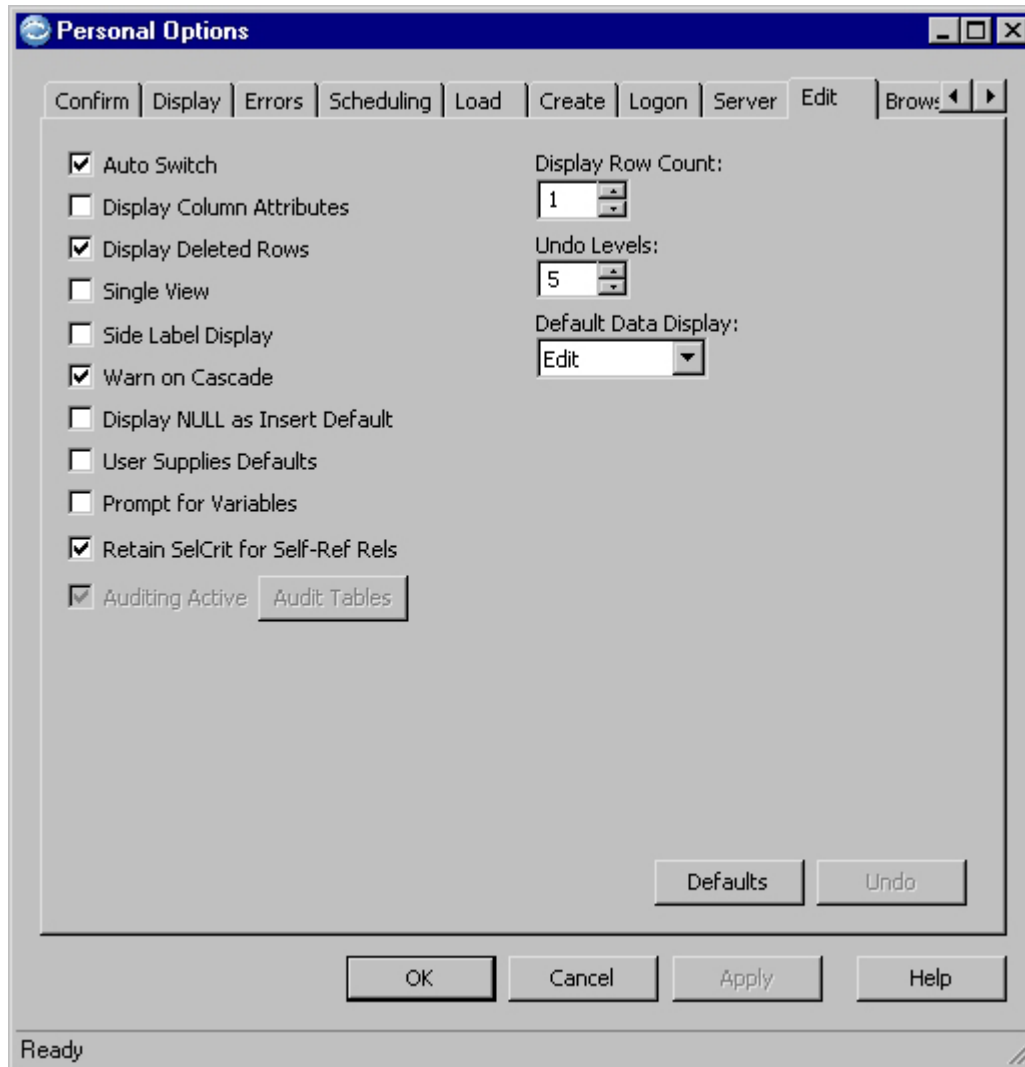
Select to display the Optim Server Logon dialog whenever the Server is used for remote processing calls.

Save as Default Logon

If you select the **Save as Default Logon** check box, the information you enter in this dialog overrides the default settings specified on the **Server** tab in Personal Options.

Edit Tab

Use the options on the **Edit** tab to set preferences for browsing and editing data.



Auto Switch

Select to automatically switch subordinate tables in a stack of two or more joined tables to display related rows.

When you select a row in a table and no related rows exist in the subordinate table, Optim automatically switches to display the next table in the stack that has a related row.

Display Column Attributes

Select to display column attributes (data type, length, and nullable attribute) for all columns in a selected table. Column attributes are useful when you insert a row or modify column data in the Table Editor.

Display Deleted Rows

Select to display rows that you delete (in Deleted status) in the Table Editor. Deleted rows appear dimmed. To hide deleted rows, clear this check box.

Single View

Select to disable the Join capability when the first item in the Table Editor is a view. Browsing and editing is more efficient using single view mode because relationship information is bypassed. However, to browse or edit related data, you must clear the check box.

Side Label Display

Select to show column names and values side by side for a single row. To show column names and values for multiple rows (Columnar Display), clear this check box.

Warn on Cascade

Select to display a warning that rows in other tables may be deleted, or column values set to NULL, when you delete rows in a table. The Delete Confirmation dialog displays the names of affected tables, including tables that are not shown in the Table Editor. Column values may be set to NULL if the relationship between the tables is using the SET NULL delete rule.

Note: Be certain you want to disable this feature before clearing this check box.

Display NULL as Insert Default

Select to specify NULL as the default value for nullable columns when you insert a new row. If you clear this check box, Optim provides a value based on the column data type. Other than NULL, possible values include blank, zero, current date, current time, and current timestamp. To specify the character for the NULL value indicator, use the **Display** tab on the Personal Options dialog.

Note: Site management may set Product Options to restrict the use of this feature.

User Supplies Defaults

Select to require a user-supplied value for every column that cannot accept a default value. If you clear this check box, Optim provides a value based on the column data type. Possible values include blank, zero, current date, current time, or current timestamp.

Note: Site management may set Product Options to restrict use of this feature.

Prompt for Variables

Select to request a prompt for default values associated with substitution variables in an Access Definition. You can use substitution variables in selection criteria to specify data to browse or edit.

Retain SelCrit for Self-Ref Rels

Select to apply selection criteria each time a table is self-referenced in the Table Editor. Clear the check box to remove, as the default, selection criteria when the table is self-referenced.

Note: A table can only be self-referenced when the Table Editor is in Browse mode.

Auditing Active

Select to activate the Audit option for tracking database changes when you edit data. If you select this option, click **Audit Tables** to specify the tables you want to audit. If you prefer not to use this option, clear the check box.

Note: Site management may set Product Options to restrict the use of this option.

Audit Tables

Click to open the Audit Tables dialog on which you can specify a list of tables to audit.

Note: Auditing is available in Personal Options only if the **Auditing Status** in Product Options is set to Active/User.

Display Row Count

Specify the default number of rows to display for each joined table in the Table Editor. Use row count to manage the display area when you join several tables in the Table Editor.

Undo Levels

Specify the default number of times (1 to 20) you can undo a commit to any row in the Table Editor. You can specify the maximum number of undo levels (or commit points) per row.

Use undo commands to restore data in the Table Editor to a prior commit point. For example, if you change three columns in a row and commit that row, you can undo the changes using one undo level. If you set **Undo Levels** to 5 and you commit 7 times on a particular row, you can undo only the last 5 committed changes to that row or return to the original row.

Default Data Display

Select the default mode for adding tables to the Table Editor. Click the down arrow to select **Browse**, **Browse Only**, or **Edit** mode for each table opened or joined in the Table Editor.

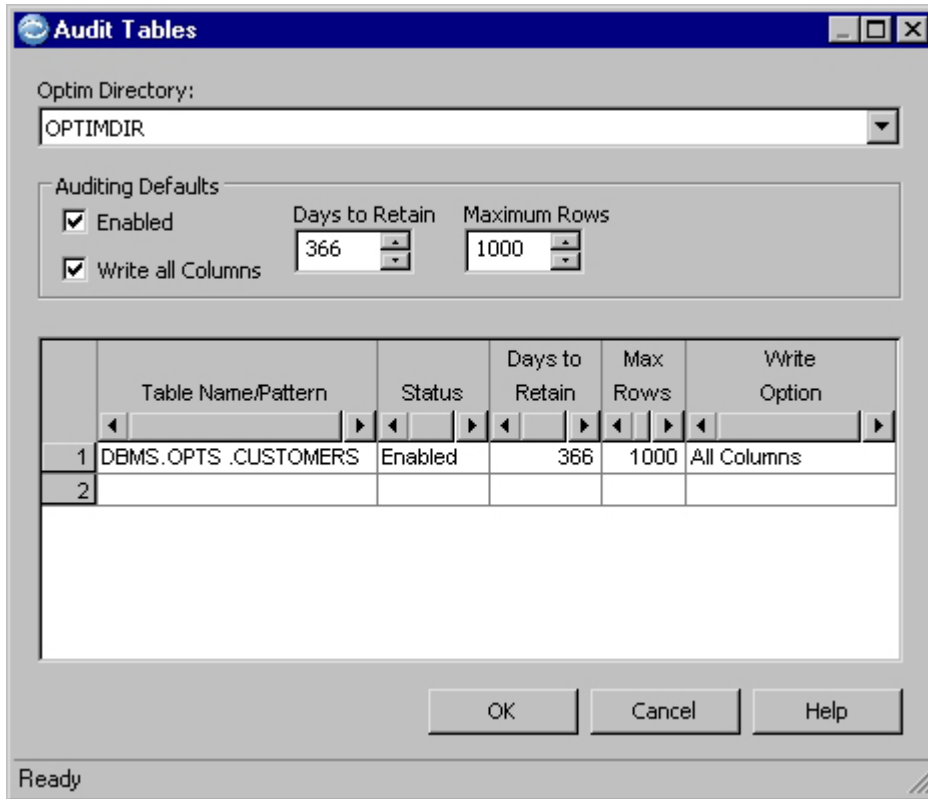
In Browse or Edit mode, a table can appear only once in the Table Editor. In Browse Only mode, a table can appear more than once in the Table Editor.

You can switch from Browse Only mode to Browse or Edit mode by unjoining any duplicate tables, selecting **Preferences** from the **Tools** menu on the Table Editor, and selecting **Browse** or **Edit** mode.

Note: If the **Force Browse Only** check box on the **Edit** tab in Product Options is selected, the controls pertaining to editing data are unavailable.

Audit Tables Dialog

If you select the **Auditing Active** check box on the **Edit** tab, click **Audit Tables** to display the Audit Tables dialog. You can specify a Personal Options list of tables to audit.



Note: Auditing is available in Personal Options only if the **Auditing Status** in Product Options is set to **Active/User**.

Optim Directory

Select the Optim Directory associated with the tables to audit. If you have access to more than one Optim Directory and want to specify the tables to audit for those directories, click the down arrow.

Audit results are stored in the PSTAUDIT table, which is one of the Optim Directory tables created when you install Optim. If you are authorized, you can browse or edit the PSTAUDIT table in the same way you browse or edit any other database table. However, **Auditing Status** in Product Options must be set to Active/User, and you must have database SELECT authority for the PSTAUDIT table.

You can specify a Personal Options list of tables to audit. However, the list specified in Product Options takes precedence over the list that you specify in Personal Options.

Table Name/Pattern

Enter the name of the database table or pattern that identifies the tables to audit. Table names consist of *dbalias.creatorid.tablename*.

When you specify a pattern for like-named tables, you can use percent (%) to represent one or more characters. Use underscore (_) to represent a single character.

Note: An option on the **General** tab in Personal Options allows you to use the underscore as an SQL LIKE character.

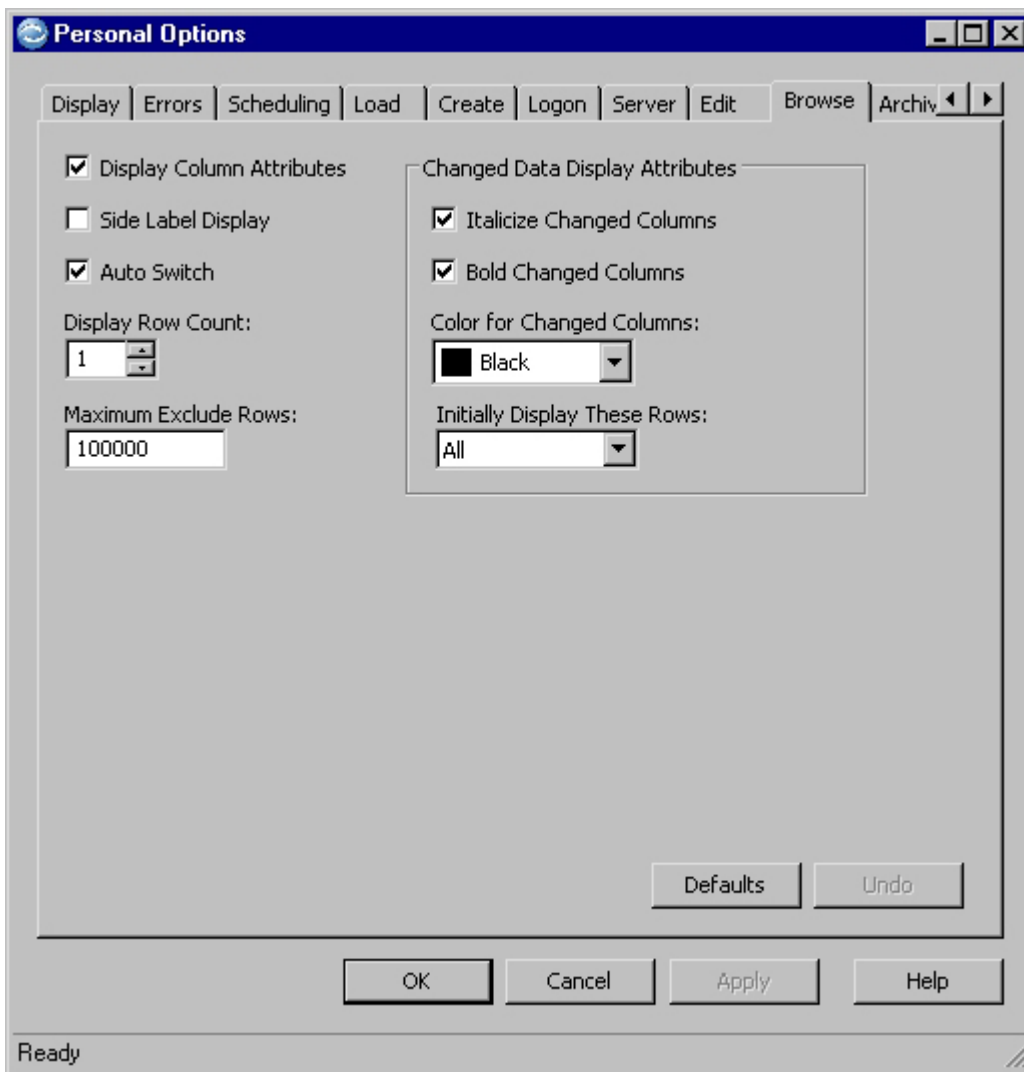
Status Enable or disable the Audit option for individual tables. Click to display a down arrow and select **Enabled** or **Disabled** for each table in the list.

If the status indicates Superseded by Product List, the table is ignored because of a conflict with the parameters set in Product Options. You cannot enable or disable the audit option for that table, but you can modify the table name or remove it from the list.

The Edit Process audits tables based on a number of specific parameters, beginning with the parameters specified on the **Edit** tab in the Product Options dialog. Refer to “Edit Tab” on page 230 for more information about the Audit option.

Browse Tab

Use the options on the **Browse** tab to set preferences for browsing data and to select font characteristics for browsing a Compare File to quickly identify changed data.



Display Column Attributes

Select to display the data type, length, and nullable attributes for all columns in a selected table when browsing an Extract File, Archive File, or a Compare File. To display only column names, clear the check box.

Side Label Display

Select to display rows one at a time, with column names and values side-by-side. To display multiple rows, in a columnar format, clear this check box.

Auto Switch

Select to automatically switch subordinate tables in a stack of two or more joined tables to display related rows.

When you select a row in a table and there are no related rows in the subordinate table, the display is automatically switched to the next table in the stack that has a related row.

Display Row Count

Specify the default number of rows to display for each joined table. Use row count to manage the display area when you join several tables.

Maximum Exclude Rows

Specify a row limit to improve performance when browsing an Extract, Archive, or Control File that contains a large number of rows. When browsing, the Exclude Rows and Only Show Rows in Error features are unavailable for tables that exceed the specified row limit. (When an Extract, Archive, or Control File is first opened for browsing, system resources are allocated for creating a cache for temporary storage of excluded rows and rows in error. Therefore, browsing a very large file can consume a large amount of system resources.) This limit is reevaluated when a table is joined to another table, because the resulting subset may contain less rows.

The default value is 100,000 rows.

When a table is browsed that contains rows in excess of the **Maximum Exclude Rows** value, a message displays to remind you of the specified limit.

Note: If you never expect to use the Exclude Rows or Only Show Rows in Error features, set this limit very low to optimize system performance.

Changed Data Display Attributes

Select options to identify changed data when browsing a Compare File.

Italicize Changed Columns

Select to *italicize* data that differs between Source 1 and Source 2.

Bold Changed Columns

Select to display the data that differs between Source 1 and Source 2 in bold type.

Color for Changed Columns

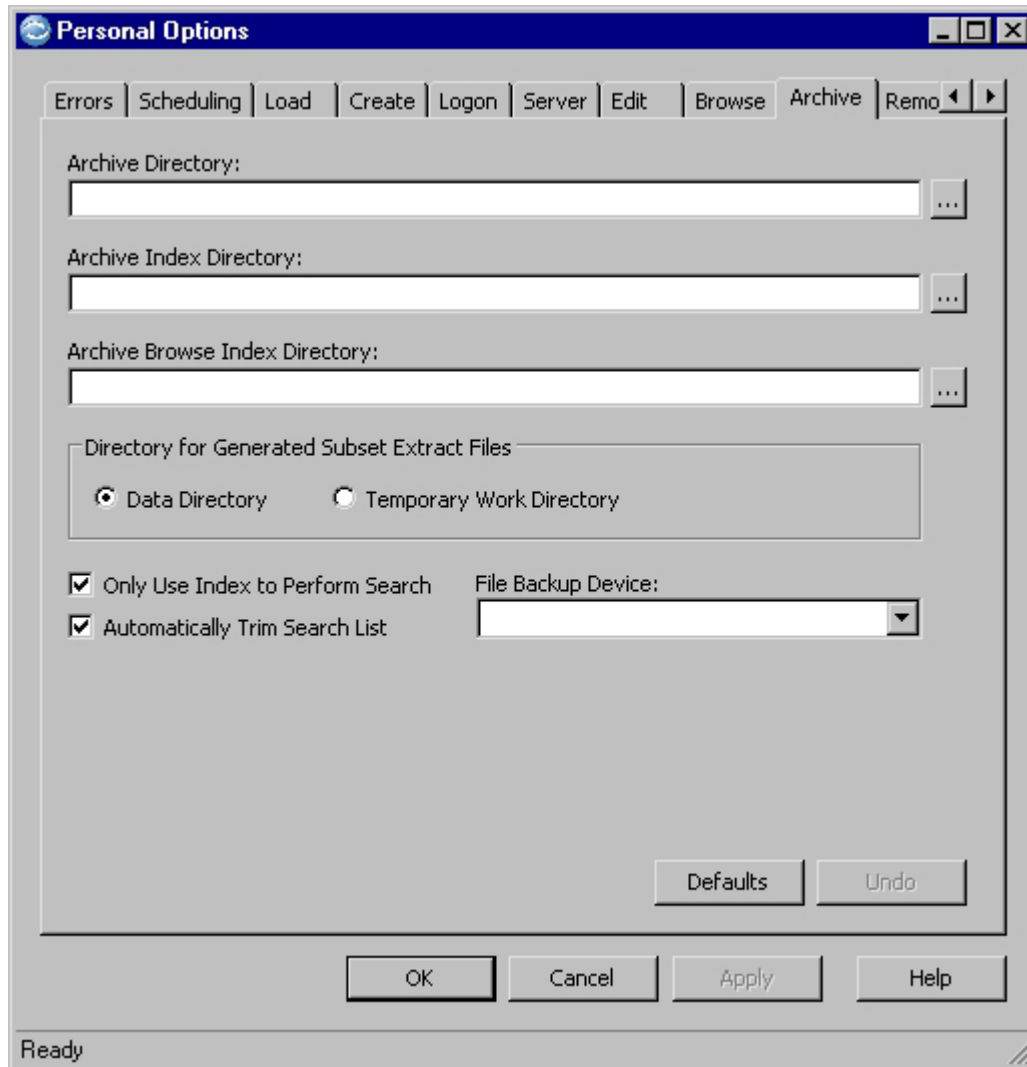
Click the down arrow to select a color to identify data that differs between Source 1 and Source 2.

Initially Display These Rows

Select rows to display by default when browsing a Compare File: All, Different, Duplicate, Equal, or Only (unmatched rows).

Archive Tab

Use the options on the **Archive** tab to set preferences for an Archive Process.



Archive Directory

Specify the complete path to the default directory where you want to store Archive Files. To select from your system directories, click the browse button. If you do not specify a directory, the Data Directory specified on the **General** tab is used by default.

Archive Index Directory

Specify the complete path to the default directory where you want to store Archive Index Files. To select from your system directories, click the browse button. If you do not specify a directory, the Archive Directory is used by default.

Archive Browse Index Directory

Specify the complete path to the default directory where you want to store Archive Index Browse Files. To select from your system directories, click the browse button. If you do not specify a directory, the Archive Directory is used by default.

An Archive Index Browse File is created automatically whenever you join tables while browsing an Archive File. The Archive Index Browse File stores primary key and foreign key information to expedite the retrieval of data, and has an .abf extension, by default. Archive Index Browse Files are dynamically updated. For this reason, it is advisable to select a directory accessible to any user that may browse an Archive File.

Directory for Generated Subset Extract Files

Select either **Data Directory** or **Temporary Work Directory** to specify the location in which to store automatically generated subset Extract Files.

Note: Both directories are specified on the **General** tab.

Only Use Index to Perform Search

When search criteria are used to locate Archive Files containing specific data, Optim initially searches for matching rows in the corresponding Archive Index Files. If a match for the search criteria cannot be determined from the Archive Index information (or index information is not defined), Optim must check the Archive File to resolve the search. This check box is cleared by default to direct the Archive Process to automatically search Archive Files when a match cannot be determined from Archive Index Files.

When you select this check box, you direct the Archive Process to search Archive Index Files only. Use shortcut menu commands **Resolve** and **Resolve All** to complete the search when a match cannot be determined from Archive Index information.

Automatically Trim Search List

Select to automatically exclude all files other than possible matches when you use the Search command to locate and display Archive File names that contain specific data.

File Backup Device

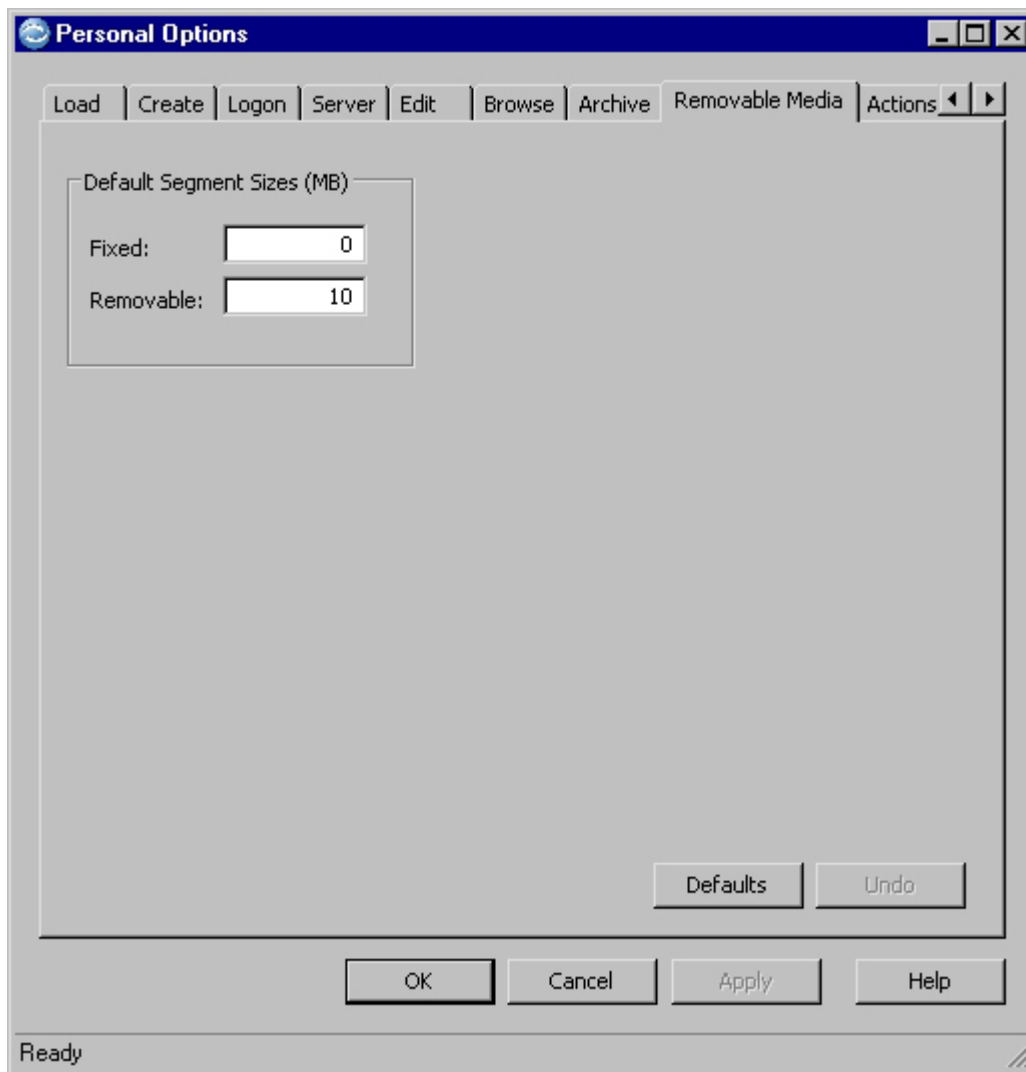
Click the down arrow to select the default backup device from a drop-down list of available backup devices.

Note: The drop-down list includes the backup devices selected on the **Archive** tab in Product Options. If no backup devices are selected in Product Options, this option is unavailable.

The default backup device is automatically selected when you create a new Storage Profile.

Removable Media Tab

Use options on the **Removable Media** tab to set default values for segment size when creating Archive Files, whether or not using a Storage Profile Definition, and Extract Files. When an Archive or Extract File is larger than the space limitation for the target media, the file must be segmented to span more than one volume.



Default Segment Sizes (MB)

Fixed Enter the segment size (0 - 9999 MB) to use when the target destination is a fixed drive (that is, hard disk). To specify no limit, enter a value of 0 (zero).

Notes:

- This value also applies to Archive Files copied to a backup device, because Archive Files are created on disk before being copied to a backup device.
- The maximum segment size when the target is a Centera Server is 2 GB.

Removable

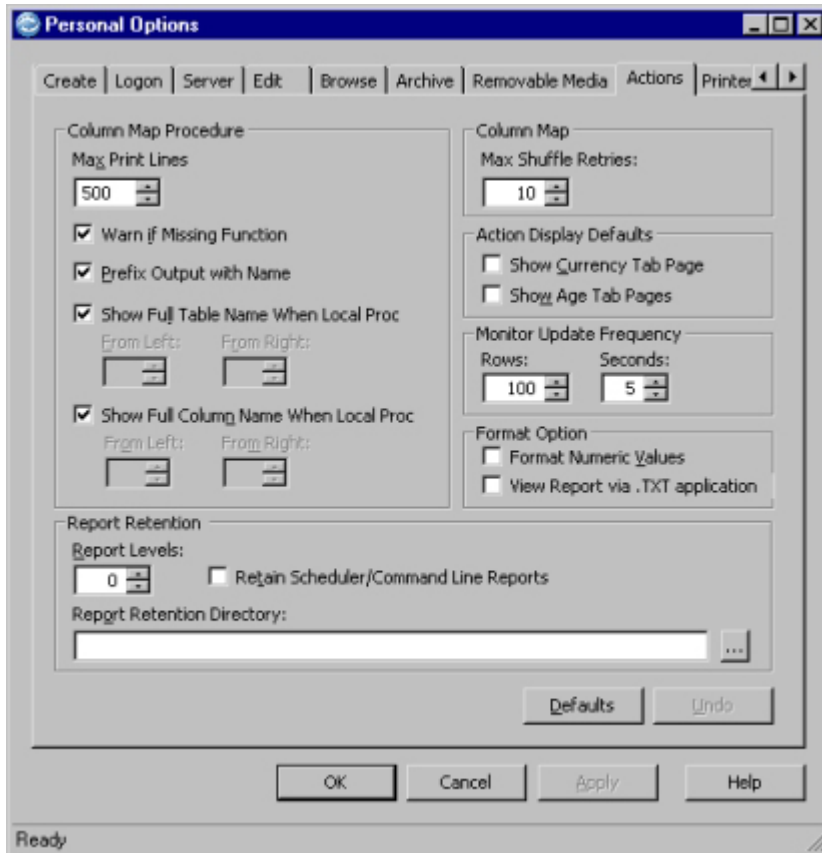
Enter the segment size (1 - 9999 MB) to use when the target destination is a removable device (e.g., zip drive).

Note: The naming convention for a segmented file is: *filename_1.ext, filename_2.ext, (... filename_n.ext), filename.ext*. The name of the last segment is the file name specified in the process request. For example, when creating an Archive File named `c:\arch\archtest.af` that requires three segments, the segments are named as follows:

`c:\arch\archtest_1.af` (segment 1)
`c:\arch\archtest_2.af` (segment 2)
`c:\arch\archtest.af` (segment 3)

Actions Tab

Use the options on the **Actions** tab to select preferences for printing Column Map procedures, displaying tabs in Action Request Editors, updating the Progress dialog, formatting numeric values, and retaining process reports.



Column Map Procedure

Max Print Lines

Specify the maximum number of lines to route to a process report. If the number of lines exceeds this maximum, a warning message indicates the output is incomplete.

Warn if Missing Function

Clear this check box to suppress the warning message generated in the process report when a Load, CmStartTable, CmEndTable, or UnLoad function is omitted from a Column Map Procedure.

Note: The CmTransform function must be included in a Column Map Procedure.

Prefix Output with Name

Select the check box to include the name of the Column Map procedure with the print output (default).

Note: When you choose to include the name of the Column Map procedure with the print output, and a Local (i.e. unnamed) Column Map procedure is used, a name for the Local Column Map procedure is automatically generated. The name is generated using the corresponding table name, column name, and a unique number as follows: *tablename.columnname.n*

The following options allow you to modify parts of the generated name for a Local Column Map procedure (the full table name and column name are used by default).

Show Full Table Name When Local Proc

Select this check box to include the full table name in the generated Local Column Map procedure name.

If you clear this check box, use the **From Left** and **From Right** controls to specify a subset of the table name. **From Left** indicates the number of bytes to use from the beginning of the table name. **From Right** indicates the number of bytes to use from the end of the table name. (For example, if the table name is CUSTOMERS, and you specify 4 for **From Left** and 2 for **From Right**, the subset of the table name used is CUSTRS.)

Show Full Column Name When Local Proc

Select this check box to include the full column name in the generated Local Column Map procedure name.

If you clear this check box, use the **From Left** and **From Right** controls to specify a subset of the column name. **From Left** indicates the number of bytes to use from the beginning of the column name. **From Right** indicates the number of bytes to use from the end of the column name. (For example, if the column name is SALESMAN_ID, and you specify 0 for **From Left** and 2 for **From Right**, the subset of the column name used is ID.)

Note: You can specify 0 for **From Left** and 0 for **From Right** to indicate that no part of the name is used. However, you must use part of either the table name or the column name.

Column Map

Max Shuffle Retries

Default number of times the Column Map Shuffle Function will refetch a replacement value until a value that does not match the source row is found (a “retry”). The Shuffle Function retry parameter overrides this default.

Enter a value from 0-1000. Enter 0 to allow a replacement value to match the source. The default is 10.

Note: Using a high retry value with columns that contain many duplicate values will increase the processing time. For these columns, it may be best to use a retry value of zero.

Action Display Defaults

Show Currency Tab Page

Select to display the **Currency** tab in the Convert, Insert, and Load Request Editors.

Show Age Tab Pages

Select to display the **Age Function** and **Global Aging** tabs in the Convert, Insert, and Load Request Editors.

Note: You can override these selections with commands available from the **Options** menu in each Action Request Editor.

Monitor Update Frequency

Rows Specify the number of rows (100 to 5000) to process before updating the status message on the Progress dialog. The default value is 100.

Seconds

Specify the number of seconds (5 to 60) to pass before updating the process time on the Progress dialog. The default value is 5.

Format Numeric Values

Select this check box to format numeric values displayed on progress dialogs and in process reports for all actions. Clear this check box to display numeric values without formatting (e.g., 99888).

For example, if you select this check box and run the Extract Process, the Extract Request Progress dialog would display 99,888 for the total number of rows extracted, depending on the numeric format defined for Windows.

Note: To view the numeric format for your workstation, select **Regional Options** from the Control Panel and review the **Numbers** tab.

Report Retention

Report Levels

Specify the maximum number of reports you can retain for each type of process. You can specify a value from 0 through 200. A value of 0 (default) disables the report retention feature.

When the number of retained reports for a particular type of process exceeds the maximum, the oldest report is deleted and the current report is saved.

Retain Scheduler/Command Line Reports

Select to retain reports generated by processes invoked using the Scheduler or the Command Line Interface. This check box is cleared by default.

Report Retention Directory

Specify the complete path to the default directory in which you want to store reports. Leave blank (default) to use the Temporary Work Directory specified on the **General** tab. To select from your system directories, click the browse button.

Note: It is recommended that each user specify a private directory for storing reports.

Printer Tab

Use the **Printer** tab to set printer, font, and language preferences for printing. Note that font and language settings appropriate to the character set used for the object will ensure that text prints correctly if the Locale settings for your computer do not match settings for the computer used to create the object.

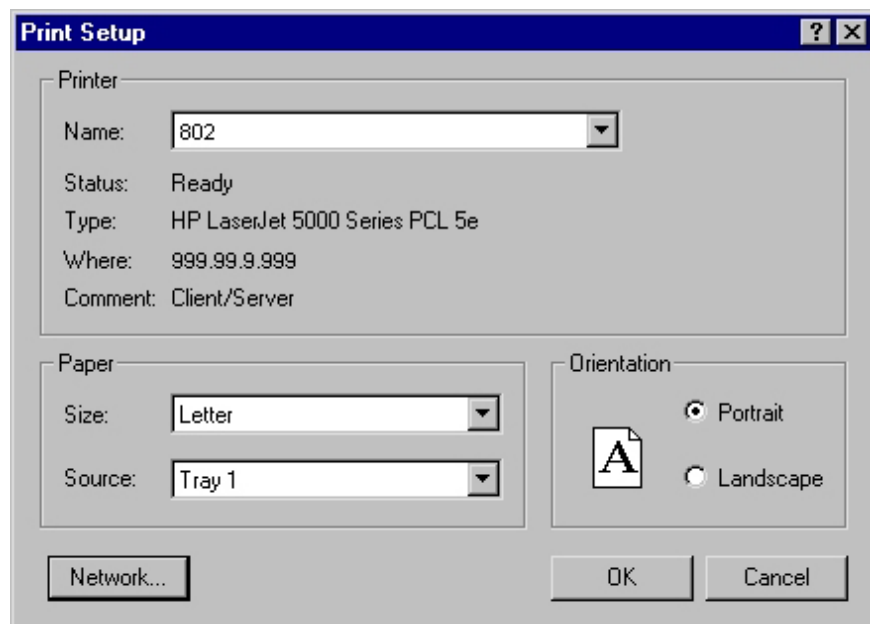


The default printer and font information for requests and definitions are shown in each of the message boxes. To open the Windows Print Setup dialog to select a printer, click **Set Printer**. To open the Windows Font dialog to select font attributes and specify the desired language script, click **Set Font**.

Printer

Set Printer

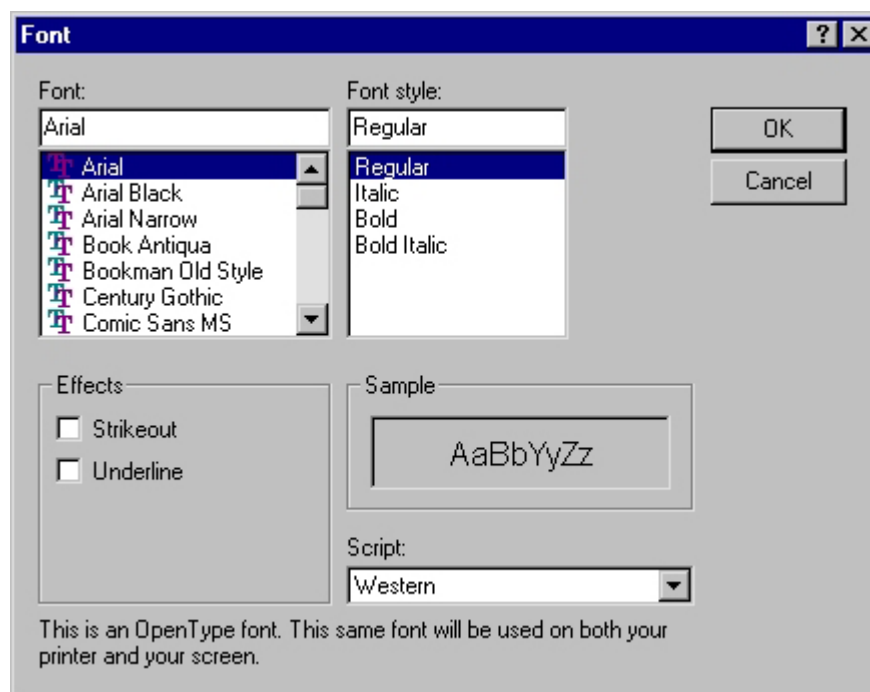
Click to display the Print Setup dialog. Select a printer to use as the default when printing requests or definitions.



Field Font

Set Font

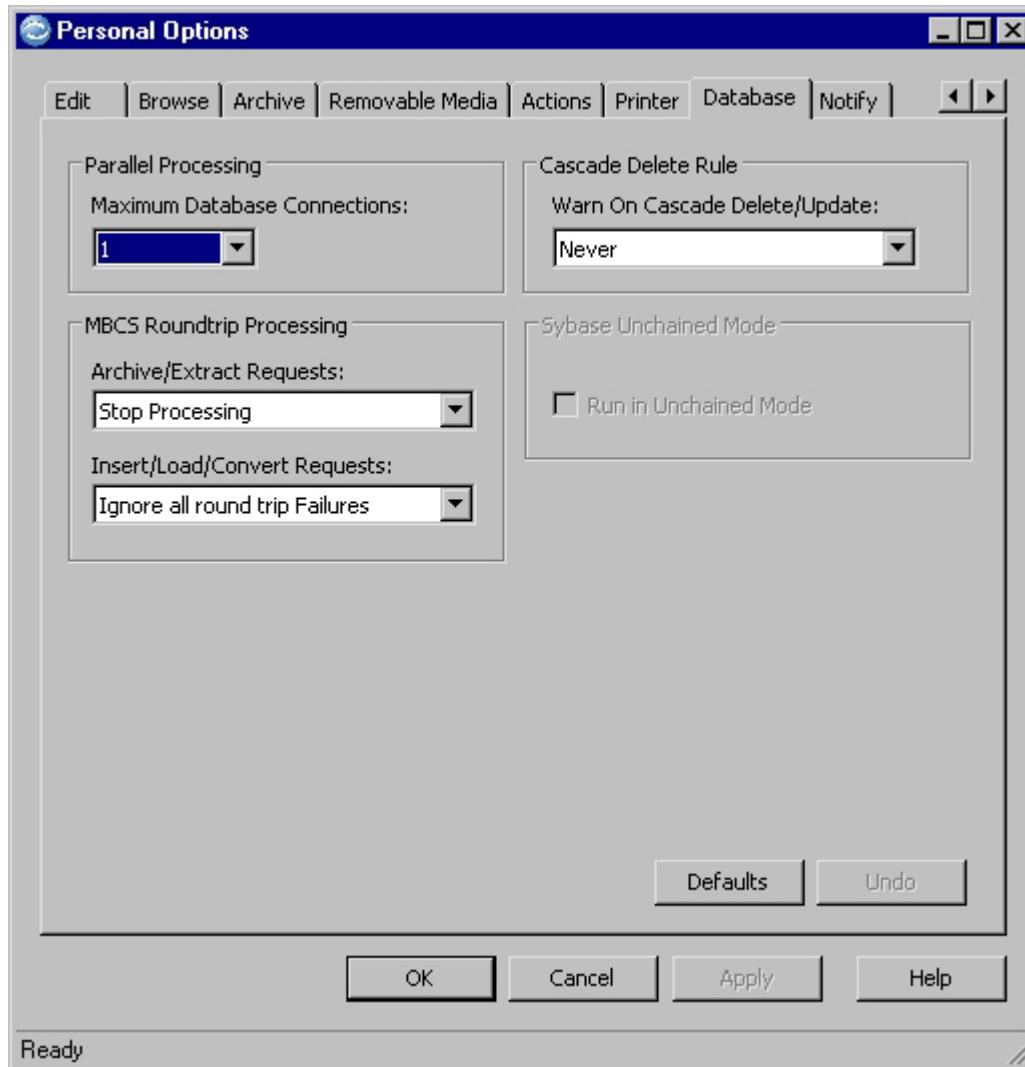
Click to display the Font dialog. Select font characteristics and a language script to use when printing requests or definitions.



Note: The available languages in the **Script** drop-down list are determined by the selected font.

Database Tab

Use the options on the **Database** tab to set preferences for handling database connections, multi-byte round trip conversion errors, and cascade deletes. For Sybase ASE, you can specify whether to run in Unchained mode.



Parallel Processing

Maximum Database Connections

Specify the default number of concurrent database connections for an Archive, Delete, or Extract Process. Increasing database connections improves performance when processing large quantities of data by allowing multiple threads to process rows in parallel.

To increase the maximum number of connections, select an even number from 2 through the site maximum as specified in Product Options.

Note: For performance reasons, you can only select an even number of maximum database connections.

MBCS Roundtrip Processing

Options for handling characters that could cause round trip conversion issues in a multi-byte Optim Directory or DB Alias. The availability of these options is governed by the **MBCS Roundtrip Processing** settings on the Product Options **Database** tab.

Optim uses the Unicode character set in dialogs and to process data. In some multi-byte character sets (such as Oracle JA16SJIS), multiple characters are mapped to the same Unicode character. When these characters are converted from Unicode back to multi-byte (a round trip), the original character may not be returned.

Archive/Extract Requests

Select an option for handling round trip conversion issues during Archive or Extract processing:

Stop Processing

Stop processing when a multi-byte character is encountered that could cause an incorrect round trip conversion.

Ignore all round trip Failures

Continue processing when a multi-byte character is encountered that could cause an incorrect round trip conversion. (Default.)

Insert/Load/Convert Requests

Select an option for handling round trip conversion issues during Insert, Load, or Convert processing:

Stop Processing

Stop processing when a multi-byte character is encountered that could cause an incorrect round trip conversion.

Ignore all round trip Failures

Continue processing when a multi-byte character is encountered that could cause an incorrect round trip conversion. (Default.)

Select the **Ignore all round trip Failures** option if the database does not contain data with characters that could cause round trip errors, or if columns used to manipulate data in a Column Map (e.g., a function is used) and columns for which selection criteria are defined do not contain characters that could cause round trip errors.

Cascade Delete Rule

Warn On Cascade Delete/Update

Display a warning if a cascading delete or update may occur to a table that is not explicitly included in an Access Definition or a process.

Runtime

Display a cascade delete/update warning only at run time of a process.

Saving Access Definition

Display a cascade delete/update warning only when saving the Access Definition.

Always

Display a cascade delete/update warning at run time of a process and when saving the Access Definition.

Never Do not display a cascade delete/update warning. This is the default setting.

The **Warn on Cascade Delete/Update** setting in Product Options (see “Cascade Delete Rule” on page 223) affects the availability of this option for user input. If available, you can click the down arrow to choose when to display a warning. If unavailable, the value specified for **Warn on Cascade Delete/Update** in Product Options is displayed and cannot be modified.

Sybase Unchained Mode

Run in Unchained Mode

Optim normally runs in chained mode. When a trigger in a Sybase ASE table will be fired as a result of an Insert or Delete Process, and the trigger calls a stored procedure that must run in unchained mode, the connection must be in unchained mode for the procedure to work.

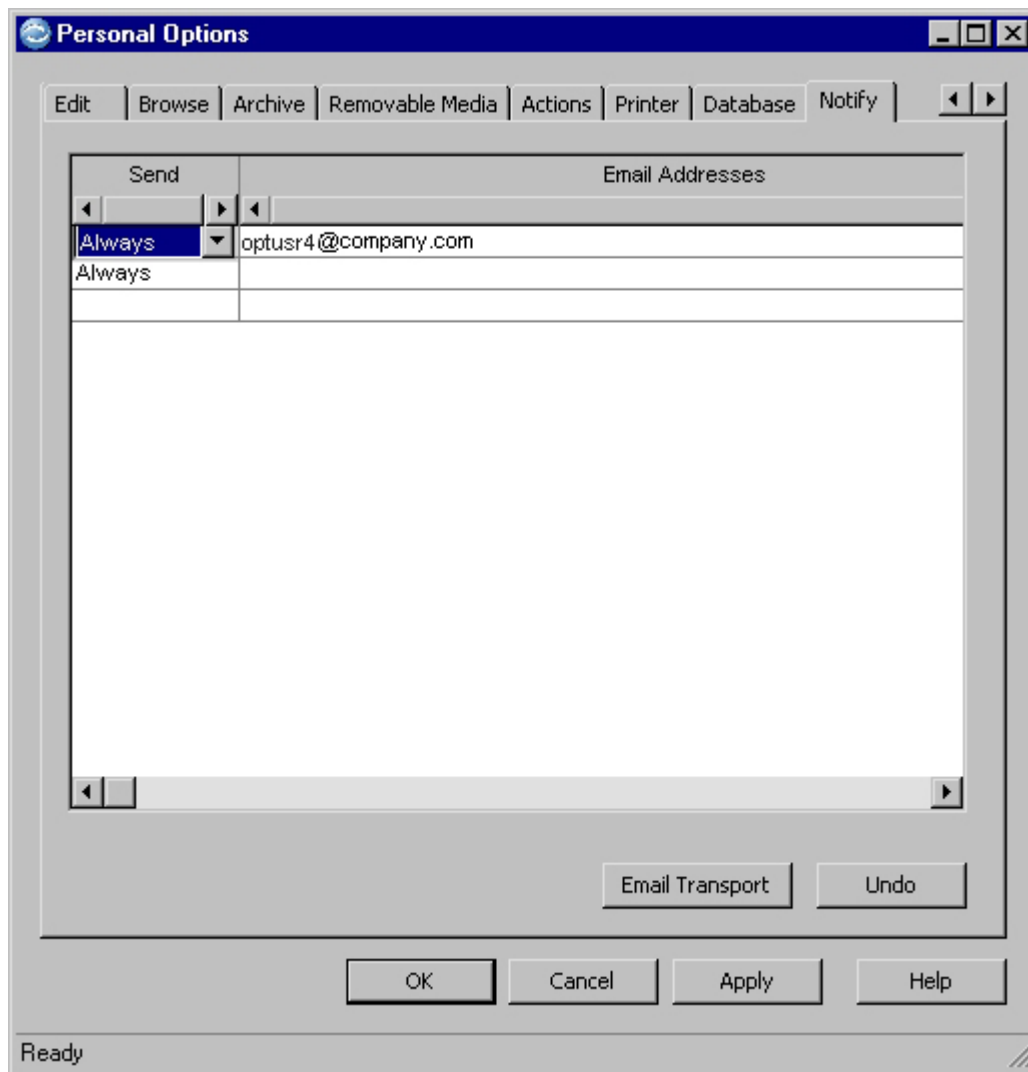
The **Sybase Unchained Mode** setting in Product Options (see “Sybase Unchained Mode” on page 225) enables or disables this check box. If enabled, select the check box to run Insert and Delete Processes in Unchained Mode, or clear the check box to run all actions in normal mode.

Notify Tab

Use the **Notify** tab to provide default options and addresses for automatic email notification of the success or failure of a process. The process report generated when a process completes is automatically sent as an attachment.

Note: Before using email notification, the desired email program must be installed. For Windows, the email client must be defined as the default, and set up to interface with MAPI. For UNIX or Linux, a valid copy of SENDMAIL must be configured correctly.

In an Action Request Editor, you can click **Get Site Defaults** on the **Notify** tab to populate it with the defaults specified in Personal Options.



Grid Details

The **Notify** tab contains the following details:

Send For each email address you list, click to select an option to send a message as determined by the outcome of the process. You can select **Always**, **Success**, or **Failure**.

Email Addresses

Enter an email address to which notification is sent with a process report at the completion of the process. Enter one address per line.

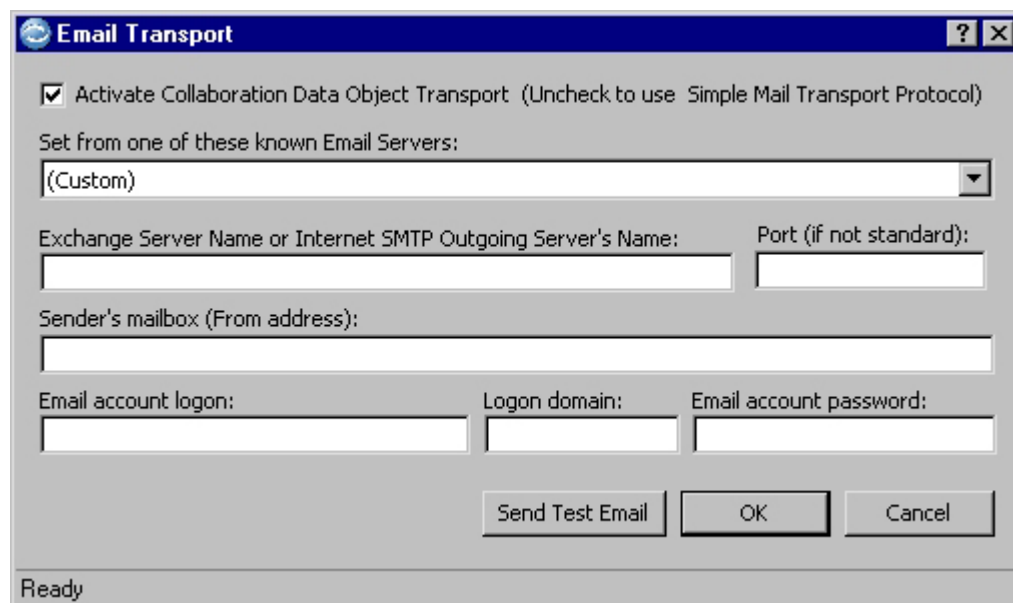
Send Test eMail

Right-click a grid row and select **Send Test eMail** to validate the email address.

Email Transport

Click this button to display the Email Transport dialog so that you may activate and configure the Collaboration Data Object (CDO) transport to send email. If you don't click this button, email is sent using the Simple Mail Protocol Transport (SMTP).

Note: You must use the CDO transport if the email client on the server requires logon credentials to send an unattended message or requires user input when SMTP is used to send a message. Also, select the CDO option if the server uses a Microsoft Outlook client (version 2000 or later) to send messages through a Microsoft Exchange server.

The image shows a Windows-style dialog box titled "Email Transport". It has a blue title bar with a question mark icon and a close button. The main area is light gray. At the top, there is a checkbox labeled "Activate Collaboration Data Object Transport (Uncheck to use Simple Mail Transport Protocol)". Below this is a label "Set from one of these known Email Servers:" followed by a dropdown menu currently showing "(Custom)". Underneath are two input fields: "Exchange Server Name or Internet SMTP Outgoing Server's Name:" and "Port (if not standard):". Below these is a single input field for "Sender's mailbox (From address):". Further down are three input fields: "Email account logon:", "Logon domain:", and "Email account password:". At the bottom right are three buttons: "Send Test Email", "OK", and "Cancel". The status bar at the very bottom says "Ready".

Activate Collaboration Data Object Transport

If you use the SMTP email transport, keep this check box cleared (default) and select **OK**. A popup will ask you if you want to connect without entering a password. If you use the CDO email transport, select this check box to enable the dialog and continue entering information.

Set from one of these known Email Servers

Click to select an account from the list and populate the remainder of the Email Transport dialog with information for the selected account.

Exchange Server Name or Internet SMTP Outgoing Server's Name

Type an exchange server name or internet address.

Port (if not standard)

Type a port name or leave blank (default port).

Sender's mailbox (From address)

Type the sender (From) email address.

Email account logon

Type the email logon name.

Logon domain

Type the domain name.

Email account password

Type the password. A blank password is valid if the account allows it; a prompt will confirm that you want to connect without entering a password.

Send Test Email

Click this button to send a test email to your mailbox.

Note: It is recommended that you send a test email to ensure that the information you entered is sufficient to send an email. If you do not receive the test email, make the necessary corrections to the information you entered.

Appendix A. Install and Configure the Server under UNIX or Linux

This section provides information needed to install and configure the Optim Server on a UNIX or Linux machine.

The installation process for Optim 7.3 has changed from prior releases of Optim and differs depending on your environment.

For Red Hat Linux 3 and Solaris 8 sites, refer to “Installation - Red Hat Linux 3 and Solaris 8” on page 306.

For all other supported UNIX or Linux platforms, refer to “Installation.”

Configuration information applies to all UNIX or Linux environments.

You can use the Sun Solaris operating environment under SPARC; the Hewlett-Packard HP-UX operating environment; the IBM AIX operating environment; or the Red Hat Application Server. Note that an Optim Server installed in a UNIX environment cannot access an Optim Directory in an SQL Server database. Configuration files, included with the installation, must be modified to adapt the Server to the requirements of your environment.

After completing the installation and configuration, processing initiated on a Windows workstation can be directed to the Server. Additionally, processing can be initiated from a console using a Command Line Interface.

Installation

Installing the Server in a Linux or UNIX environment can be performed using the graphical user interface or from the command line. There are differences in the installation process depending upon your environment. The information in this section applies to all Linux and UNIX platforms **except Red Hat Linux 3 and Solaris 8**.

For all Linux and UNIX environments, **except Red Hat Linux 3 and Solaris 8**, this section outlines installing the Optim Server using the graphical user interface. To install from the console, see “Console Installer - UNIX or Linux” on page 295. To use the silent installer, see “Silent Installer - UNIX” on page 304.

For sites using Red Hat Linux 3 and Solaris 8, refer to “Installation - Red Hat Linux 3 and Solaris 8” on page 306.

Installing from the Graphical User Interface

Before you begin:

- You may need to give executable permission to **install.bin**.
- Clear the following directories if they exist: **/tmp/softech** and **absoluteInstallLocation/rt/bin/etc/***
- Create **/tmp/softech** if it does not exist

To start installing the Optim Server using the graphical user interface, either:

- Double click in **install.bin** or
- At the command prompt use **./install.bin**

The installation process begins. Each panel displays showing the step of the installation. You can click **Next** to continue through the installation process or click **Previous** to return to an earlier panel. **Cancel** stops the installation process.

These panels are similar in appearance to those used to install Optim in Windows, though there are differences. This section contains information and descriptions of the panels. Where applicable, references are provided to panels that resemble those described here.

When the installation process begins, an Introduction dialog and Welcome panel display. Next is the Software License Agreement dialog.

This dialog is shown in “Software License” on page 25.

A. The Software License Agreement dialog prompts you to accept the License Agreement.

After you read and accept the License Agreement, select **I accept the terms in the license agreement** to indicate that your company agrees to its provisions. You must click **Next** to continue installing Optim. Other command buttons:

I do not accept the terms in the license agreement

 Cancels Setup and does not install Optim.

Print Prints this dialog.

B. After accepting the Software License Agreement, the Choose Destination Location dialog displays. See “Install Location” on page 28 for a sample of this dialog.

The Choose Destination Location dialog prompts you to select the directory where the Optim Server will be installed. A default path and directory are shown. You can choose the default directory, type a new directory path, or click **Choose...** to browse for a directory. If you select a directory that does not exist, Optim creates it for you, along with the subdirectories RT and Bin. Click **Next** to continue to the Shutdown Information dialog.

C. The Shutdown Information dialog describes shutting down any Optim or RT Servers that are running. **Next** displays the Type of Installation dialog.

D. For an example of the Type of Installation dialog, see “Select the Type of Installation” on page 27. On the Type of Installation dialog, choose from these options:

- **Full Installation of your Optim Solution:** installs all components of Optim: Optim Server Executable Files, Sample Files, and Optim-Open Data Manager Interface.
- **Customized Installation:** allows you to manually select the Optim components to install.

If you select **Full Installation of your Optim Solution:**, clicking **Next** continues to the ODM Installation Information dialog.

Selecting **Customized Installation:** and clicking **Next** displays the Component Selection dialog.

E. See “Install ODM” on page 30 for an example of the ODM Installation Information dialog. This dialog prompts you to choose from these options:

- **Install and Configure ODM Now** installs ODM as part of this install process
- **Only Copy the ODM Files** copies the ODM files for you to install at a later time

F. If you select **Install and Configure ODM Now** click **Next** and the Open Data Manager (ODM) License Information dialog displays.

Selecting **Only Copy the ODM Files** and clicking **Next** displays the Pre-installation Summary dialog.

G. If you selected **Customized Installation**:the Component Selection dialog is displayed next. See “Select Components” on page 29 for an example of this dialog. The Component Selection dialog lists all the features available for installation. You can select:

- **Optim Server Executable Files** installs all files, including shell scripts and configuration files needed to run the Optim Server.
- **Sample Files** installs sample Extract Files.
- **Optim - Open Data Manager Interface** installs Open Data Manager (ODM), used with external applications to access data in Archive Files.

If you select **Optim - Open Data Manager Interface**, clicking **Next** displays the ODM Installation Information dialog. (See E. above.)

If you did not select **Optim - Open Data Manager Interface**, the Pre-installation Summary dialog is next.

H. The Pre-installation Summary displays information such as destination location, selected components, and disk space required. For an example of this dialog, see “Summary” on page 33. You can make any changes by clicking **Previous** to return to a dialog and make modifications. When you are ready to begin the installation process, click **Install**.

I. The Installing Optim panel displays, showing a progress bar. For an example of this panel see “Installing IBM Optim” on page 34

When the installation process completes, these post-installation steps begin:

- The **rtedit** command file installs. This launches the default editor that you will use to modify shell scripts and configuration files before starting Optim for the first time.
- The next dialog displays information about the shell scripts and configuration files to be modified. You can scroll the display and read about each file.
- The Select Files to Modify dialog displays next. If you select files to modify from this list, the default editor launches, displaying the selected file.
- Next you are prompted to sign the default Optim exit and supply your company's ID, name, and password.
- You are then prompted to view the Release Notes.
- The next dialog prompts you to remove temporary files. During installation, Optim creates several temporary log and error files. You can delete these .log and .err files from the /tmp/softech directory.
- The Installation Complete panel displays the message that Optim has been successfully installed.

Console Installer - UNIX or Linux

In a UNIX environment, you can run the installer from the console to install Optim server. The information in this section applies to all UNIX or Linux platforms **except Red Hat Linux 3 or Solaris 8**.

For Red Hat Linux 3 or Solaris 8, refer to:

- “Command Line Installation - Red Hat Linux 3 or Solaris 8” on page 323
- “Installation - Red Hat Linux 3 and Solaris 8” on page 306

To install Optim server from the console, use this command in the installer directory: **./install.bin -i console**

This starts the console installation process.

```
[raj@ql40a shwetha]$ ./install.bin -i console
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing CONSOLE Mode Installation...

-----
Optim                                     (created with InstallAnywhere)
-----
```

The Launching installer screen displays, followed by the Introduction screen:

```
=====
Introduction
-----

InstallAnywhere will guide you through the installation of Optim.

It is strongly recommended that you quit all programs before continuing with
this installation.

Respond to each prompt to proceed to the next step in the installation.  If you
want to change something on a previous step, type 'back'.

You may cancel this installation at any time by typing 'quit'.

PRESS <ENTER> TO CONTINUE: █
```

Information about the installation process displays. Throughout the process you can use these commands:

- To return to a previous screen, use **back**.
- To cancel the installation, use **quit**.

Press **Enter** to continue to the Welcome screen:


```
=====
Welcome to Optim
=====

Welcome to the Optim Server Setup program.

This program will install the OptimServer component on a UNIX computer.

You will need to manually modify a few files before you can start the Optim
Server for the first time. A list of these files will be displayed at the end
of this setup program.

IMPORTANT INFORMATION COMPLETE. PRESS <ENTER> TO CONTINUE: █
```

This panel informs you that some files must be modified before starting the Optim Server. Continue to the Software License Agreement screen:

```
BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL
AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO
THESE TERMS,

- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON,
OR USE THE PROGRAM; AND

- PROMPTLY RETURN THE UNUSED MEDIA, DOCUMENTATION, AND PROOF OF
ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE
AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE
PROGRAM.

Press Enter to continue viewing the license agreement, or enter "1" to
accept the agreement, "2" to decline it, "3" to print it, or "99" to go back
to the previous screen.: █
```

The Software License Agreement screen prompts you to read and accept the agreement. Enter one of the following:

- 1 to accept the agreement and proceed to the Choose Destination Location screen.
- 2 to decline the agreement
- 3 to print the agreement
- 99 to return to the previous screen

The Choose Destination Location screen displays next:

```
=====
Choose Destination Location
=====

Setup will install Optim in the following folder.

Where would you like to install?

Default Install Folder: /home/optim/IBM/Optim

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

The Choose Destination Location screen prompts you to select a directory where the Optim server will be installed. You can accept the default or enter the path to the directory you choose.

Continue to the Shutdown Information screen:

```
=====
Shutdown Information
=====

Shut Optim servers down-Important information

If there are no previous installations of the Optim server on this machine
for the user account used for this installation, click <Next> to continue.

If upgrading your Optim server, it is a best practice to install the upgraded
server into a directory different from that of the previous installation.
Retain the previous installation until the new installation is tested. If
upgrading the server from version 5.x, you MUST install into a separate
directory. Before installing the upgraded server, you must manually stop all
running server processes for the user account and, if upgrading from Optim
version 6.x, you must also run the following command from the directory in
which the previous Optim server is installed:

rt/mw/bin/mwadm stop

IMPORTANT INFORMATION COMPLETE. PRESS <ENTER> TO CONTINUE:
```

The Shutdown Information screen contains instructions for uninstalling or stopping any earlier versions of Optim server.

Continue to the Choose Install Set screen:

```
Choose Install Set
-----

Please choose the Install Set to be installed by this installer.

->1- Full installation of your Optim solution
    2- Customize...

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 1
```

On the Choose Install Set screen, select either option:

- 1 for full installation. This installs all components of Optim: Optim Server Executable Files, Sample Files and Open Data Manager Interface. You continue with the ODM Installation Information screen.
- 2 for customized installation. This allows you to select the components of Optim to install. You continue with the Choose Product Features screen.

If you chose customized installation, the Choose Product Features screen displays next:

```
Please choose the Install Set to be installed by this installer.

->1- Full installation of your Optim solution
    2- Customize...

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
: 2

-----

Choose Product Features

ENTER A COMMA SEPARATED LIST OF NUMBERS REPRESENTING THE FEATURES YOU WOULD
LIKE TO SELECT, OR DESELECT. TO VIEW A FEATURE'S DESCRIPTION, ENTER
'?<NUMBER>'. PRESS <RETURN> WHEN YOU ARE DONE:

1- [X] Optim Server Executable Files
2- [X] Sample Files
3- [X] Optim - Open Data Manager Interface

Please choose the Features to be installed by this installer.: 
```

Select the features you want to install. All features are selected by default. To unselect a feature, type the number of the feature you want to exclude from the installation. To unselect more than one feature, type their numbers, separated by commas.

Continue to the Install and Configure Open Data Manager screen:


```
=====
Install and Configure Open Data Manager Now?
=====

Your Optim solution includes a 30-day trial license for Open Data Manager (ODM).
In order to use ODM after 30 days, you must have a permanent license. Direct all
ODM license key requests and inquiries to optkeys@us.ibm.com. If you do not have
access to the license file or wish to install ODM at a later time, select 'Only
Copy the ODM Files'.

->1- Install and Configure ODM Now
   2- Only Copy the ODM Files

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: █
```

The Install and Configure Open Data Manager screen displays if you chose full installation or if you selected the Optim Open Data Manager feature on the Choose Product Features screen. Choose either option:

- 1 to install Open Data Manager now. Continue to the Configure ODM License Type screen.
- 2 to copy the files and install at a later time. You will continue to the Pre-Installation Summary screen.

If you chose to install Open Data Manager now, the Configure ODM License Type screen displays:

```
=====
Configure ODM License Type
=====

ODM is distributed with a temporary license and requires a new permanent license
each time you upgrade the version of your Optim solution. If you have a valid p
ermanent license for ODM, Select 'Specify ODM License File'. If not select, 'En
able a 30-day Trial License'.

You may obtain a permanent license by submitting a request to IBM Optim Technica
l Support.

   1- Specify ODM License File
->2- Enable a 30-day Trial License

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT::
```

The Configure ODM License Type screen has these options:

- 1 specify the ODM license file
- 2 enable a 30-day trial license

Continue to the Specify ODM License File screen:


```

each time you upgrade the version of your Optim solution. If you have a valid p
ermanent license for ODM, Select 'Specify ODM License File'. If not select, 'En
able a 30-day Trial License'.

You may obtain a permanent license by submitting a request to IBM Optim Technica
l Support.

    1- Specify ODM License File
    ->2- Enable a 30-day Trial License

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: 1

Specify ODM License File

Enter the fully qualified name to the ODM license file. If you do not have acces
s to the file at this time, type 'back' and choose 'Enable a 30-day Trial Licens
e' choice.

Specify ODM License File (DEFAULT: ):

```

This screen prompts you to enter the fully-qualified name of your ODM license file or return to the previous screen and choose a trial license.

Next, the Pre-Installation Summary screen displays:

```

Pre-Installation Summary

Please Review the Following Before Continuing:

Product Name:
    Optim

Install Folder:
    /users/raj/shwetha/IBM

Install Set:
    Full installation of your Optim solution

Product Features:
    Optim Server Executable Files,
    Sample Files,
    Optim - Open Data Manager Interface

Java VM Installation Folder:
    /users/raj/shwetha/IBM/ibm_jre

Disk Space Information (for Installation Target):
    Required: 459,198,819 bytes

```

The Pre-Installation Summary screen displays details, including the type of installation, product features and space requirements. Press **Enter** to proceed with the installation.

When the installation process completes, the following screen displays:

```

=====
Important Information
=====

Please read the information below

The following command file has been installed:

rt/sbin/rtedit

The rtedit command file is used by setup to launch your default editor
(specified by the $EDITOR environment variable) during the next several steps.
If this environment variable is not set at your site, or you wish to use a
different editor to edit the files listed in the previous panel, you must
manually edit this file before continuing with the next step of this
installation.

IMPORTANT INFORMATION COMPLETE. PRESS <ENTER> TO CONTINUE: █

```

This screen displays information about the rtedit file and the \$EDITOR environment variable. Proceed to the Files to Modify screen:

```

=====
Files to Modify
=====

The following files must be modified for your installation before the Optim
Server can be run. The Setup program is not able to launch your default editor
(via /users/raj/shwetha/IBM/rt/sbin/rtedit) to modify each of the selected
files.

Please modify the files listed below before starting Optim.

/users/raj/shwetha/IBM/rt/rtsetenv
/users/raj/shwetha/IBM/rt/sbin/rtserver
/users/raj/shwetha/IBM/rt/sbin/rt4s
/users/raj/shwetha/IBM/rt/etc/pstserv.cfg
/users/raj/shwetha/IBM/rt/etc/pstlocal.cfg
/users/raj/shwetha/IBM/rt/etc/locale.conf

PRESS <ENTER> TO CONTINUE: █

```

The files listed on this screen must be modified before running Optim. Continue to the Sign Optim Exit screen:


```

=====
Sign Optim Exit
=====

Optim requires that a Signed Optim Exit exists to validate that a user is author-
ized to use this product. Optim supplies a default Optim Exit that can be used.
In order to sign an exit, you must have the Company ID, Name and Password for yo-
ur company that was included when you received your License Key. This informatio-
n is case sensitive and must be entered exactly as provided.

Do you want to sign the default Optim Exit?

->1- Yes
   2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: █

```

On the Sign Optim Exit screen, choose whether to sign the default Optim exit. The View Release Notes screen displays next:

```

View Release Notes
=====

The file /users/raj/shwetha/IBM/rt/bin/release_notes.txt contains information th-
at did not make it into the manuals.

Do you want to view the release notes file?

->1- Yes
   2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: █

```

Choose whether to view the Release Notes. Release Notes are displayed if you selected them. Next, continue with the Remove Temporary Files screen:

```

=====
Remove Temporary Files
=====

Setup created a set of .log and .err files in /tmp/softech. These files contain
standard out and standard error information that could be used by support if pr-
oblems occurred during setup. Setup can remove these files now or you can manua-
lly remove them later.

Do you want setup to remove the /tmp/softech files now?

->1- Yes
   2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: █

```

During the installation, several temporary and log files are created. You can choose whether Optim removes these files. Next, the Installation Complete screen displays:

```
-----
Installation Complete
-----

Congratulations. Optim has been successfully installed to:

    /users/raj/shwetha/IBM

PRESS <ENTER> TO EXIT THE INSTALLER: █
```

When the installation process completes, this screen displays. Press **Enter** to exit the installer. See “Configuration” on page 327 to establish defaults for the Server.

Silent Installer - UNIX

You can use the silent installer in a UNIX environment to install the Optim Server. The silent installer is unavailable for Red Hat Linux 3 or Solaris 8 platforms. For all other supported UNIX and Linux environments, the Optim Server can be installed with the silent installer as described below.

The Optim installation includes the file **installer.properties** in the same directory where **install.bin** is located. To use the silent installer, open the **optim_installer.properties** file and make any modifications to the variables to customize it for your installation. These variables are:

INSTALLER_UI=SILENT

Install using silent installer.

LICENSE_ACCEPTED=TRUE

Specify that the license agreement is accepted.

USER_INSTALL_DIR=*directory*

Fully-qualified path to the destination directory to install Optim.

CHOSEN_FEATURE_LIST=

Specify the list of features enabled. Files related to these features are copied into the installation directory. Values are:

Optim for Optim Server executables

Sample for Optim sample files

ODM for Open Data Manager

Specify the values in a comma-separated feature list. The values you specify for CHOSEN_FEATURE_LIST= must match the values you specify for CHOSEN_INSTALL_FEATURE_LIST=.

CHOSEN_INSTALL_FEATURE_LIST=

The list of features to install. Values are:

Optim for Optim Server executables

Sample for Optim sample files

ODM for Open Data Manager

Specify the values in a comma-separated feature list. The values you specify for CHOSEN_INSTALL_FEATURE_LIST= must match the values you specify for CHOSEN_FEATURE_LIST=.

CHOSEN_INSTALL_SET=

The type of installation. Values are:

Full installs all Optim features. If you choose this value, ensure that both CHOSEN_INSTALL_FEATURE_LIST= and CHOSEN_FEATURE_LIST= include all the features.

Custom installs features specified in CHOSEN_INSTALL_FEATURE_LIST=.

USER_INPUT_ODM_NOW= and USER_INPUT_ODM_LATER= should be included in the properties file only if you are installing the ODM feature. Otherwise, remove them from the file.

USER_INPUT_ODM_NOW=

Installs and configures ODM now. Values are:

1 install ODM now

0 do not install ODM now

USER_INPUT_ODM_LATER=

Copy the ODM files. Values are:

1 copy the files.

0 do not copy the files.

Include **USER_INPUT_ODM_USERLIC=** and **USER_INPUT_ODM_TRIAL=** only if both these conditions are met:

- you are installing ODM (CHOSEN_INSTALL_FEATURE_LIST contains ODM), and
- you are installing and configuring ODM now (USER_INPUT_ODM_NOW=1).

Otherwise, remove **USER_INPUT_ODM_USERLIC=** and **USER_INPUT_ODM_TRIAL=** from the file.

USER_INPUT_ODM_USERLIC=

Specify whether a valid ODM license file will be used. Values are:

1 a valid license file will be used to install ODM.

0 there is no valid license file to install ODM.

USER_INPUT_ODM_TRIAL=

Specify whether a trial license will be used for ODM. Values are:

1 use a default 30-day trial license.

0 do not use a 30-day trial license.

Include **ODM_LICENSE_FILE_FULL_PATH=** only if all these conditions are met:

- you are installing ODM (CHOSEN_INSTALL_FEATURE_LIST contains ODM) and
- you are installing and configuring ODM now (USER_INPUT_ODM_NOW=1) and
- you are using a valid ODM license file (USER_INPUT_ODM_USERLIC=1).

Otherwise, remove **ODM_LICENSE_FILE_FULL_PATH=** from the file.

ODM_LICENSE_FILE_FULL_PATH=*pathtolicensefile*

Specify the fully-qualified path to the ODM license file.

USER_INPUT_DELETE_FILES=

Specify whether to delete the temporary files created during the installation. Values are:

1 delete the temporary files.

0 do not delete the temporary files.

USER_INPUT_DONOT_DELETE=

Specify to prevent deleting the temporary files created during the installation. Values are:

1 do not delete the temporary files.

0 delete the temporary files.

After you specify the variables in the `installer.properties` file, use one of these commands to start the silent installer.

If the `installer.properties` file is in the same directory as `install.bin`, use the command:

```
./install.bin -i silent
```

If the `installer.properties` file is in a different directory than `install.bin`, use the command:

```
./install.bin -fdirectorypathinstaller.properties
```

where *directorypath* is the fully-qualified path to the directory for the `installer.properties` file.

After the installation completes, see “Configuration” on page 327 to establish defaults for the Server.

Installation - Red Hat Linux 3 and Solaris 8

Installing the Server takes only a few minutes and can be performed using a graphical interface or from the command line.

The graphical interface option uses the setup program to guide you through the installation process. To use this option, see “Run Setup - Red Hat Linux 3 or Solaris 8.”

Note: A graphical workstation is required to run the setup program, and a defined DISPLAY environment variable must point to the workstation. To ensure that you have the proper environment for running setup, open a terminal session and issue the following command: `echo $DISPLAY`. The command should return a valid identifier for your graphical workstation. If not, see your System Administrator.

The command line option uses a setup options file, `setuptopts`, in which you define your installation settings. To use this option, see “Command Line Installation - Red Hat Linux 3 or Solaris 8” on page 323.

Installing from a Network Drive - Red Hat Linux 3 or Solaris 8

You can copy the contents of the Optim Server DVD to a network drive and then run the setup program from the network drive.

1. Create a directory on a network drive.
2. Copy the contents of the Optim Server DVD to the directory. Copy all of the files in the root of the Optim Server DVD to the network drive.
3. See Section “Run Setup - Red Hat Linux 3 or Solaris 8” to begin installation.

Run Setup - Red Hat Linux 3 or Solaris 8

The graphical interface option uses the setup program to guide you through the installation process.

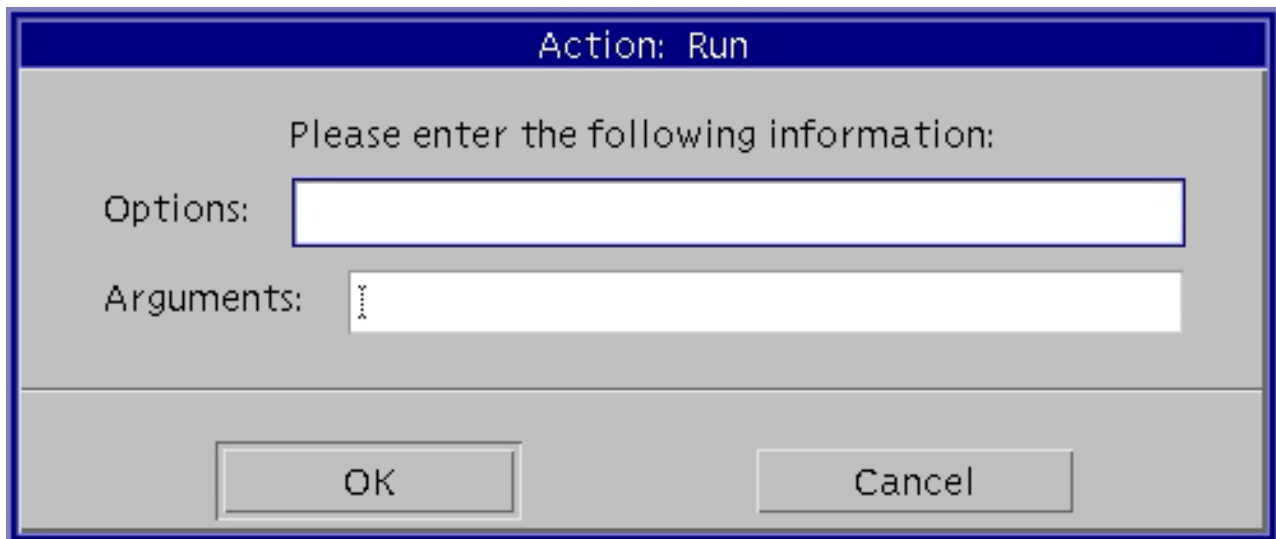
You can begin Optim Server installation from a graphical interface in one of two ways:

- Mount the Optim Server DVD. From File Manager or a console window, navigate to the DVD-ROM drive and start setup.
- If you copied the contents of the Optim Server DVD to a network drive, navigate to the drive from File Manager or a console window, and start setup.

Begin Optim Server Installation - Red Hat Linux 3 or Solaris 3

This section describes how to begin the Optim Server installation.

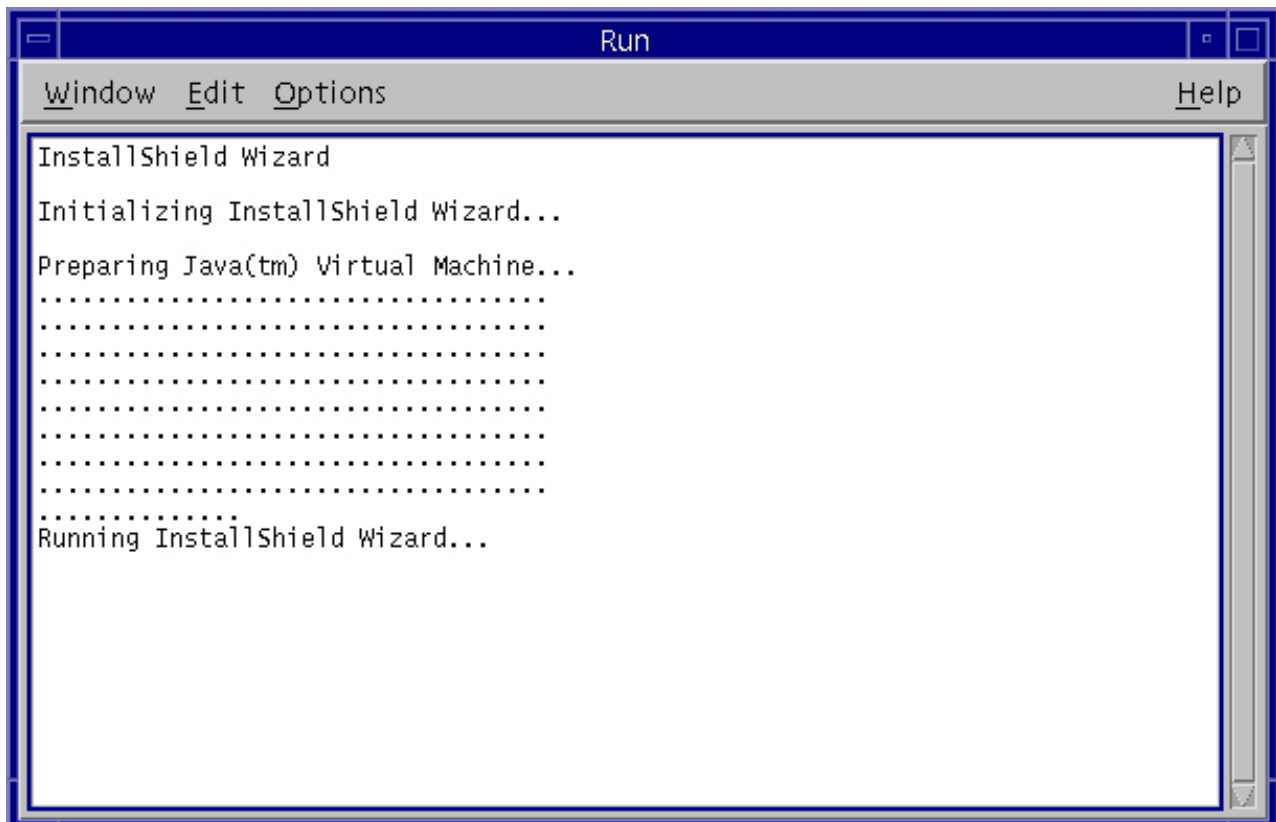
When you launch setup, a prompt for options and arguments displays.



Dialog box titled "Action: Run". The text inside says "Please enter the following information:". There are two input fields: "Options:" and "Arguments:". At the bottom are "OK" and "Cancel" buttons.

Do not enter options or arguments. Click **OK** to continue.

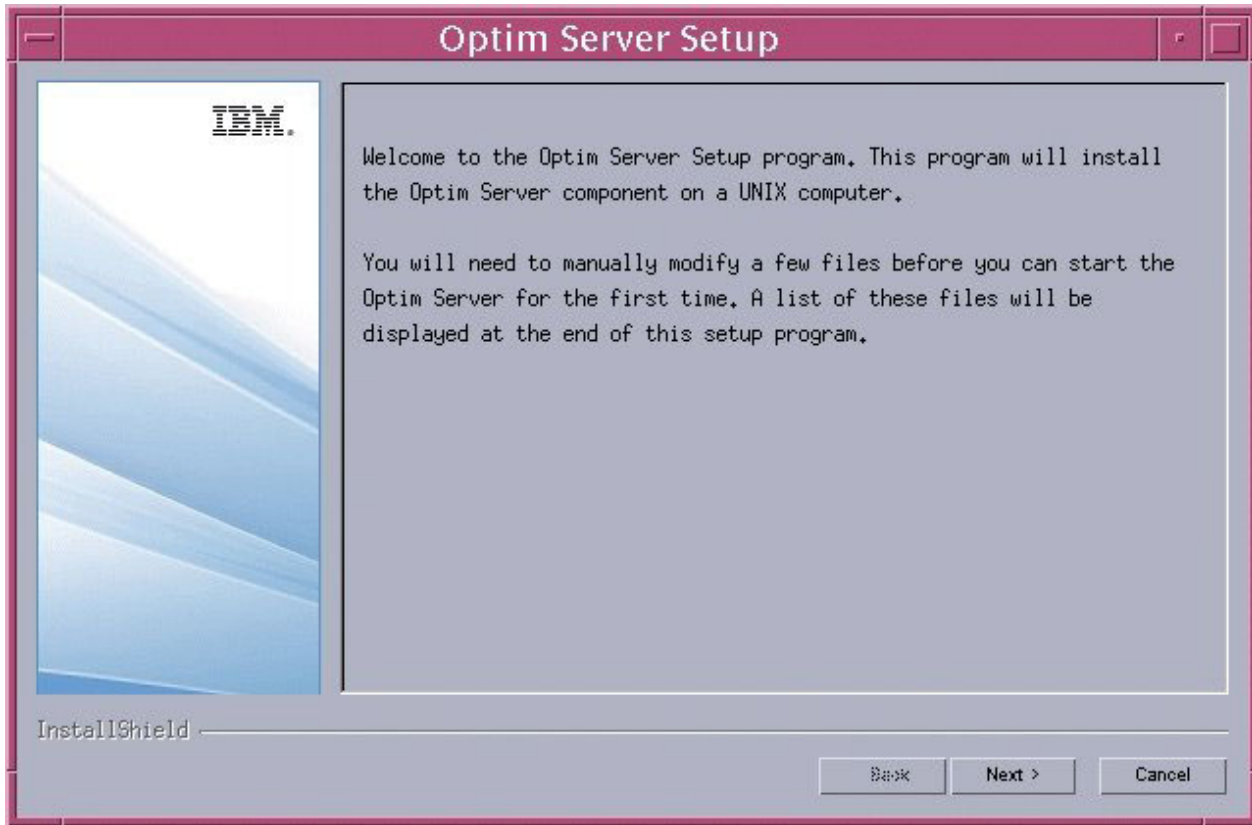
The progress of a Sun Java Runtime Environment, which launches an installation program wizard, is displayed initially.



Window titled "Run". The menu bar includes "Window", "Edit", "Options", and "Help". The main text area displays the progress of the InstallShield Wizard:

```
InstallShield Wizard
Initializing InstallShield Wizard...
Preparing Java(tm) Virtual Machine...
.....
.....
.....
.....
.....
.....
.....
.....
.....
Running InstallShield Wizard...
```


The installation program wizard displays a Welcome panel. The Welcome panel reminds you that at the conclusion of the installation process, you must manually modify the configuration files before you can run Optim.



Click **Next** to continue.

Troubleshooting Setup - Red Hat Linux 3 or Solaris 8

This section describes how to troubleshoot Setup.

If the installation program wizard or Welcome panel fails to display, check the following:

- The DISPLAY environment variable must be set to a value that points to the graphical workstation session used to run the setup program.
- The signature of the mounted Optim DVD must not contain the character "#". When Automount is used on a Sun Solaris machine to mount a DVD, it creates a unique signature for the DVD, which is usually the DVD's volume label. If another DVD with a matching volume label is mounted, Automount appends a #n to the end of the volume label to generate a unique signature. This can occur if two versions of an Optim DVD are mounted, and UNIX has not been rebooted between mounts. If this occurs, you must shut down Automount and restart it.
- The temporary directory used by the setup program may be full. The default temporary directory is /var/tmp. To change the temporary directory, you can run the setup program with the following parameters:

```
./setup -is:tmpdir /your_tmp_dir
```

where /your_tmp_dir is the name of the temporary directory.

If the setup program still fails to start the installation program wizard, you can run the setup program in console mode with the following parameters:

```
./setup -console -is:javaconsole
```

The default destination directory used by the setup program is

`/opt/IBM/Optim`

To change the destination directory in console mode, you can run the setup program with the following parameters:

```
./setup -console -is:javaconsole -P Main.installLocation=/your_dest_dir
```

where `/your_dest_dir` is the name of the destination directory.

To change the temporary directory in console mode, you can run the setup program with the following parameters:

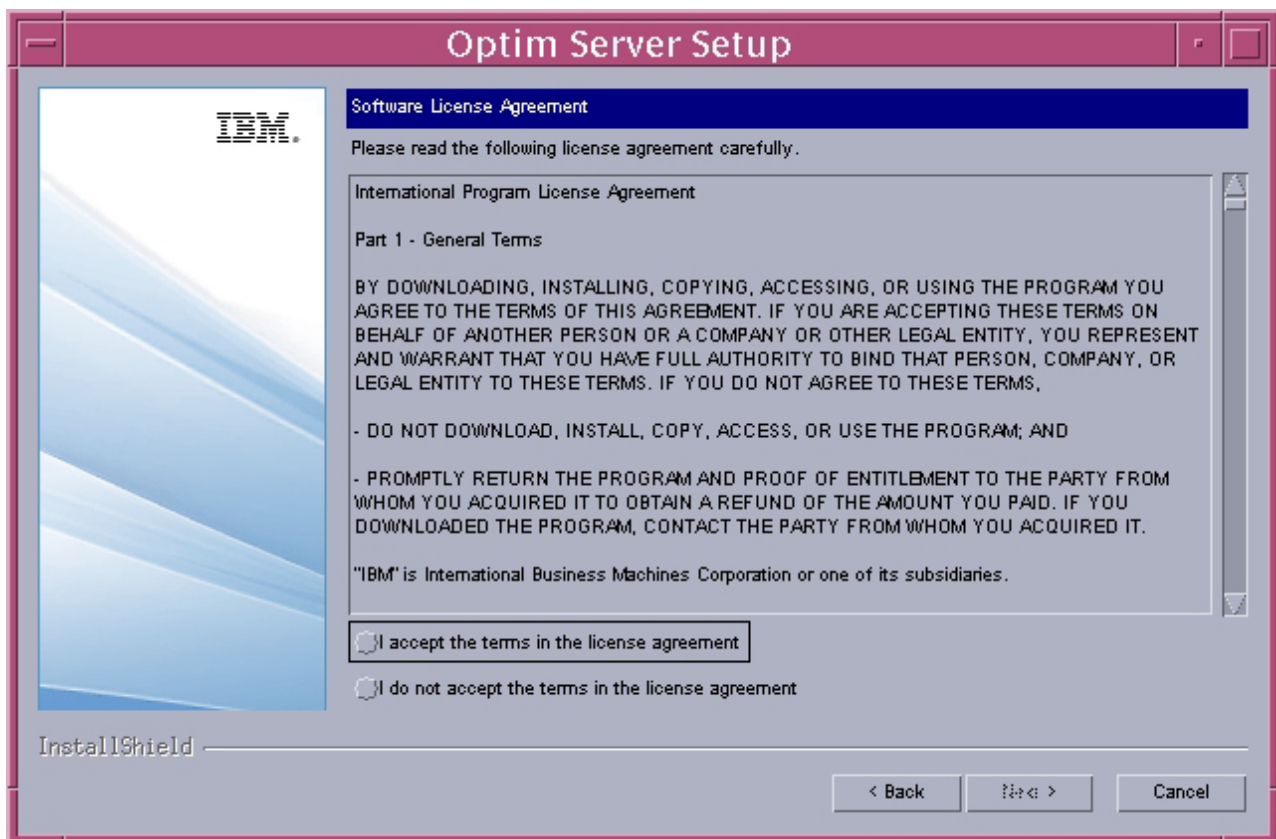
```
./setup -console -is:javaconsole -is:tmpdir /your_tmp_dir
```

where `/your_tmp_dir` is the name of the temporary directory.

Software License Agreement - Red Hat Linux 3 or Solaris 8

This section describes the Optim Software License Agreement.

The next dialog prompts you to read the License Agreement.

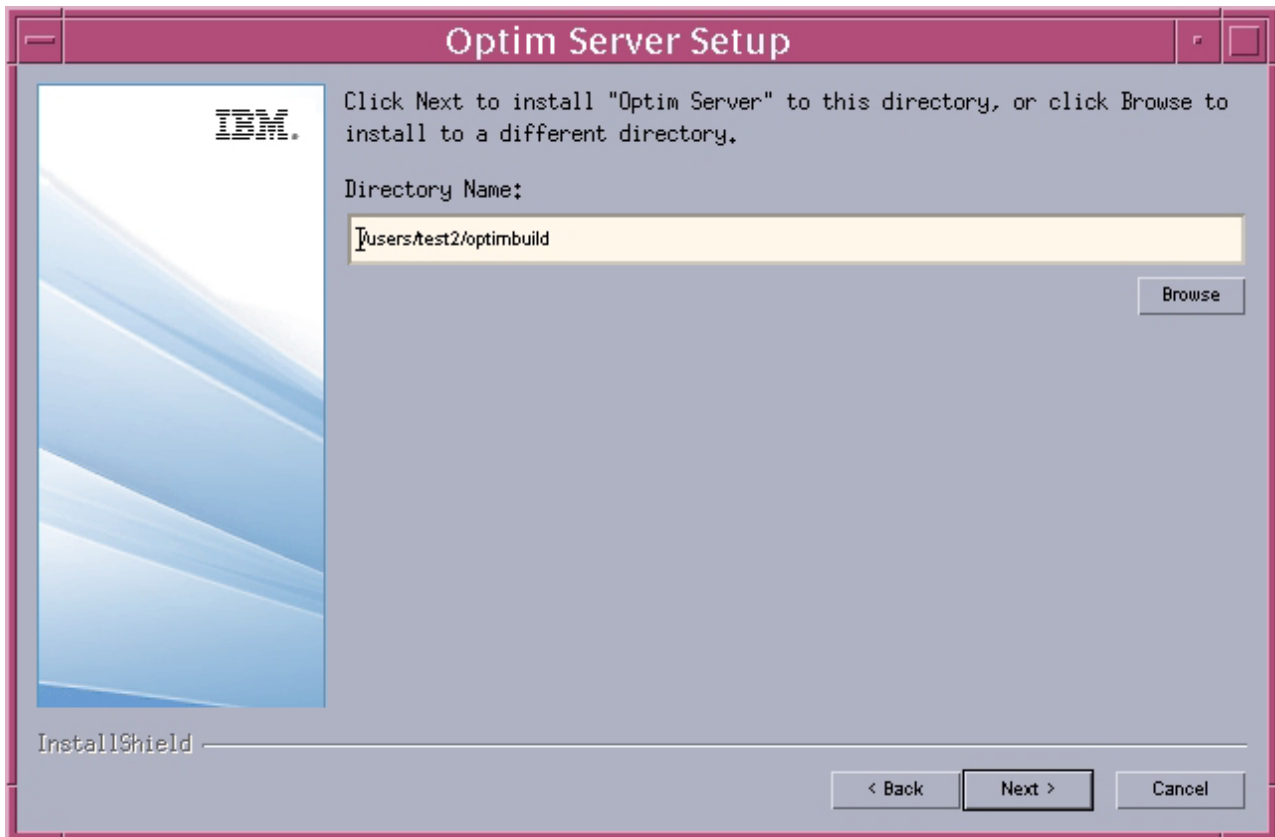


You must accept the terms of the license agreement in order to enable the **Next** button and continue the installation. After you select the option accepting the licensing agreement, click **Next** to indicate that your company agrees to its provisions.

Choose Destination Location - Red Hat Linux 3 or Solaris 8

This section describes how to choose the destination location.

The Server must be installed in a directory. When the following dialog opens, a default path and directory name are provided.



Directory Name

Enter the directory path for installing the Server. To change the path, type over the path provided, or click **Browse**. If you indicate a directory that does not exist, setup creates it. Setup also creates the subordinate directories, RT and Bin.

Browse

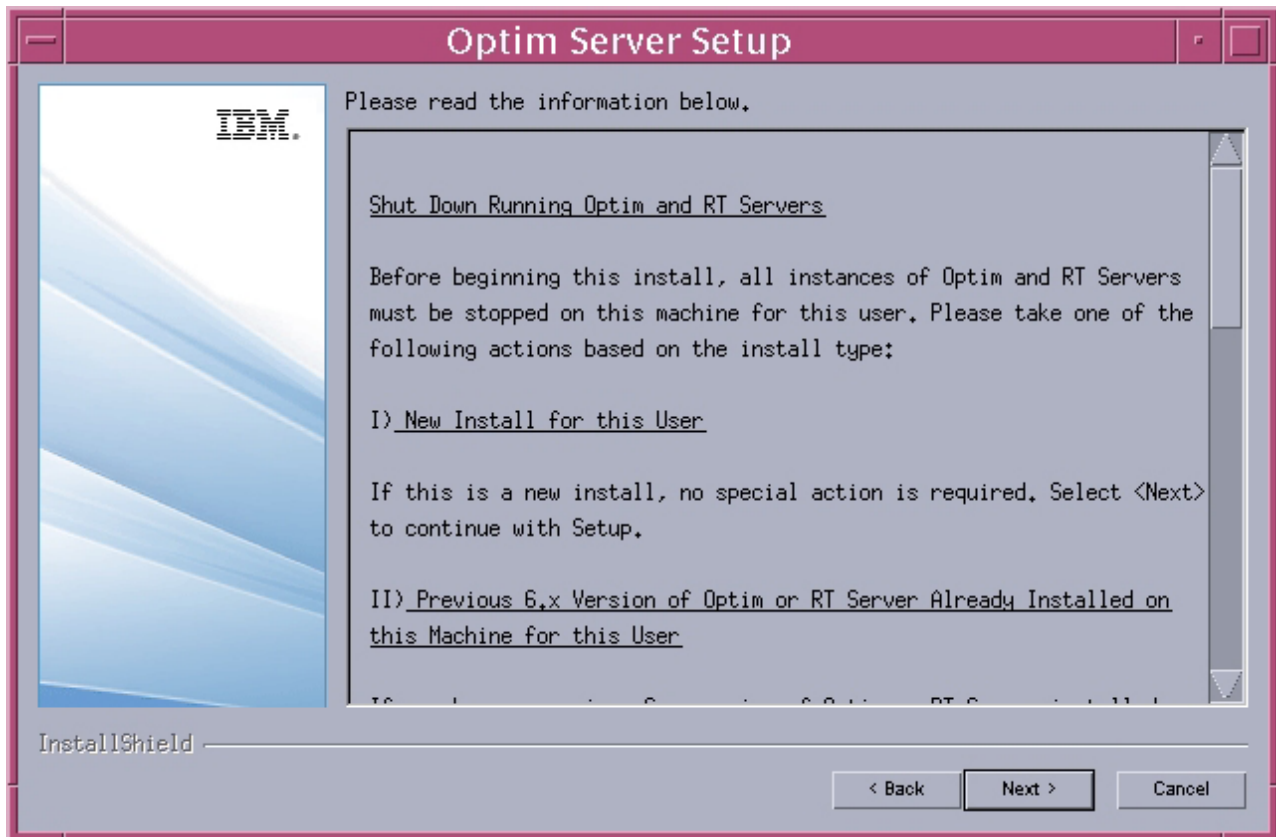
Click **Browse** to open the Choose Folder dialog where you can select a different folder for installing the Server.

To continue, click **Next**.

Shut Down the Server - Red Hat Linux 3 or Solaris 8

This section describes how to shut down the Server.

If you are installing the Server for the first time or if you are reinstalling a current version of the Server on a machine that has no other Server installations, simply click **Next** to continue with setup.



However, if you are installing the Server in the same directory as any running Server or command-line process, or you are running a Server or a command-line process under the same user id that is running setup, you must stop one or more Optim Servers or Optim command-line processes.

Before shutting a Server down, you must log on as the processing user account for the Server and run the following commands:

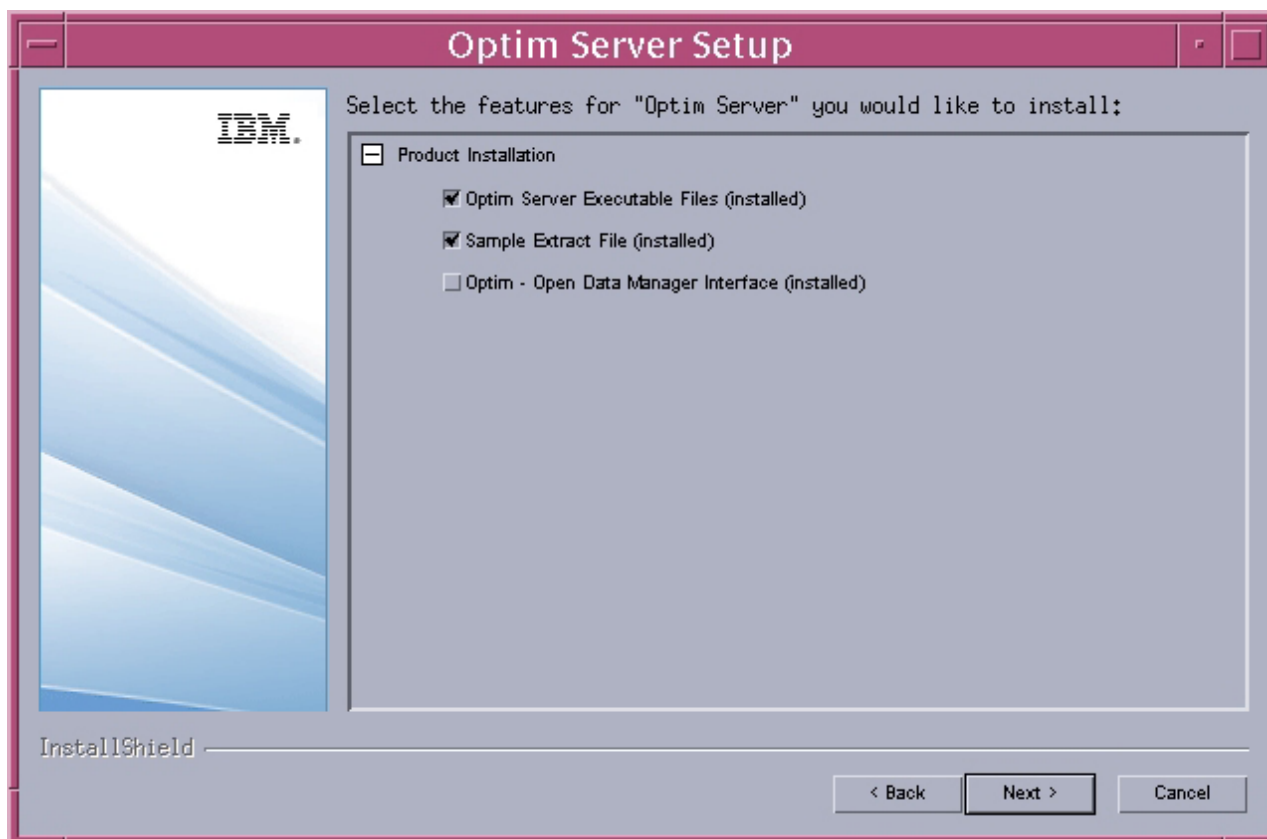
- `mwcleanup`
- `mwadm stop`

If the services cannot be stopped because they are in use, you may see a message. You must then wait until the services end after all Optim command-line processes that use them have exited and all Optim Servers that use them have been stopped. You can periodically check the status of the services with the `mwadm status` command. If you want to force-stop the services, you can enter the `mwadm stop -f` command. However, use this command as the last resort as it will force-terminate all running Optim programs that are using the services being stopped.

Select Components - Red Hat Linux 3 or Solaris 8

This section describes how to select components.

The Select Components dialog lists the features available for installation. All components are selected by default.



Optim Server Executable Files

Select this check box to install all files, including shell scripts and configuration files, needed to run the Server in a Solaris, HP-UX, AIX or Linux operating environment.

Upon completion of the installation process, you are prompted to modify the shell scripts and configuration files to suit your environment.

Sample Files

Select this check box to install sample Extract Files. For more information about samples, refer to Appendix H, "Samples," on page 503.

Optim - Open Data Manager Interface

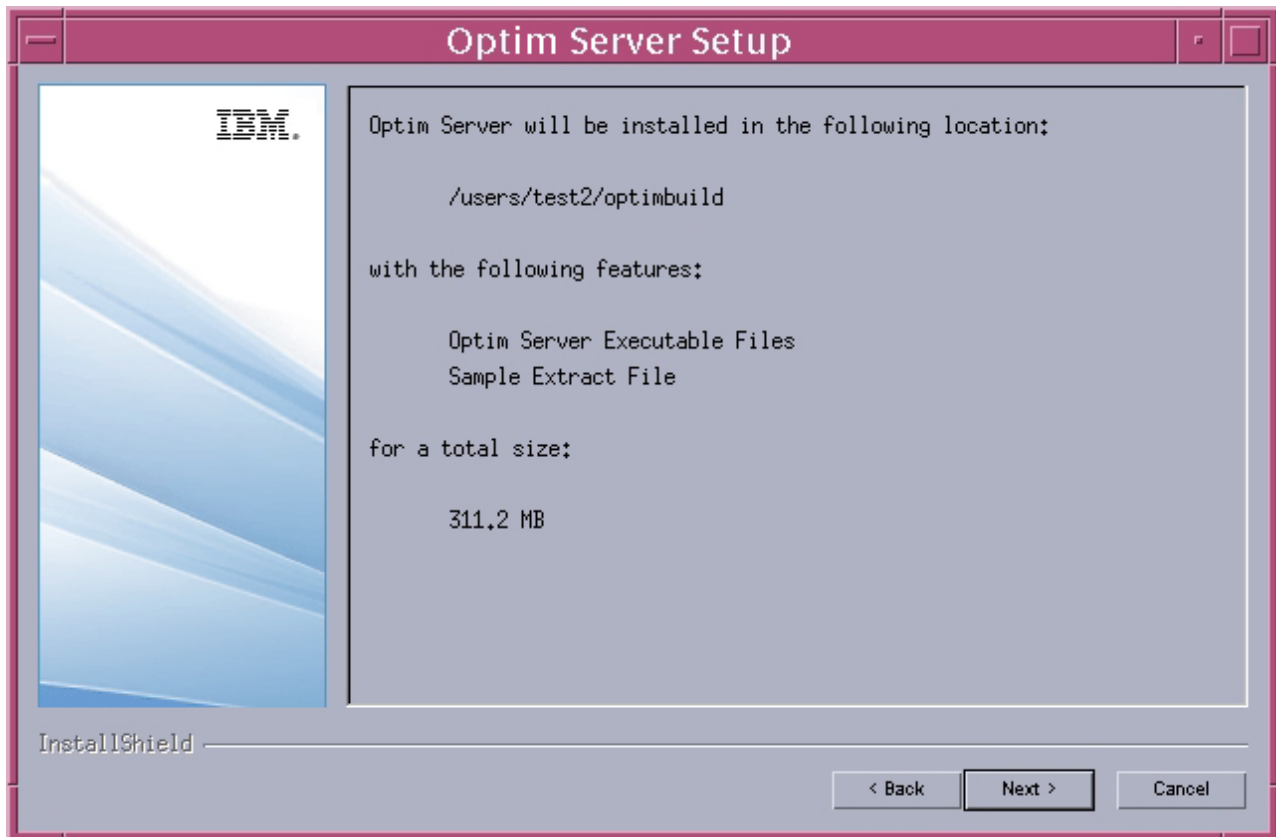
Select this check box to install Open Data Manager (ODM), which is used with external applications to access data in Archive Files. ODM requires a product license and is required for installations of certain Optim application-aware solutions. If ODM is needed, the Installation Guide for the Optim application-aware solution directs you to select ODM. Refer to Appendix F, "Open Data Manager," on page 449 for ODM installation instructions.

To continue, click **Next**.

Confirmation - Red Hat Linux 3 or Solaris 8

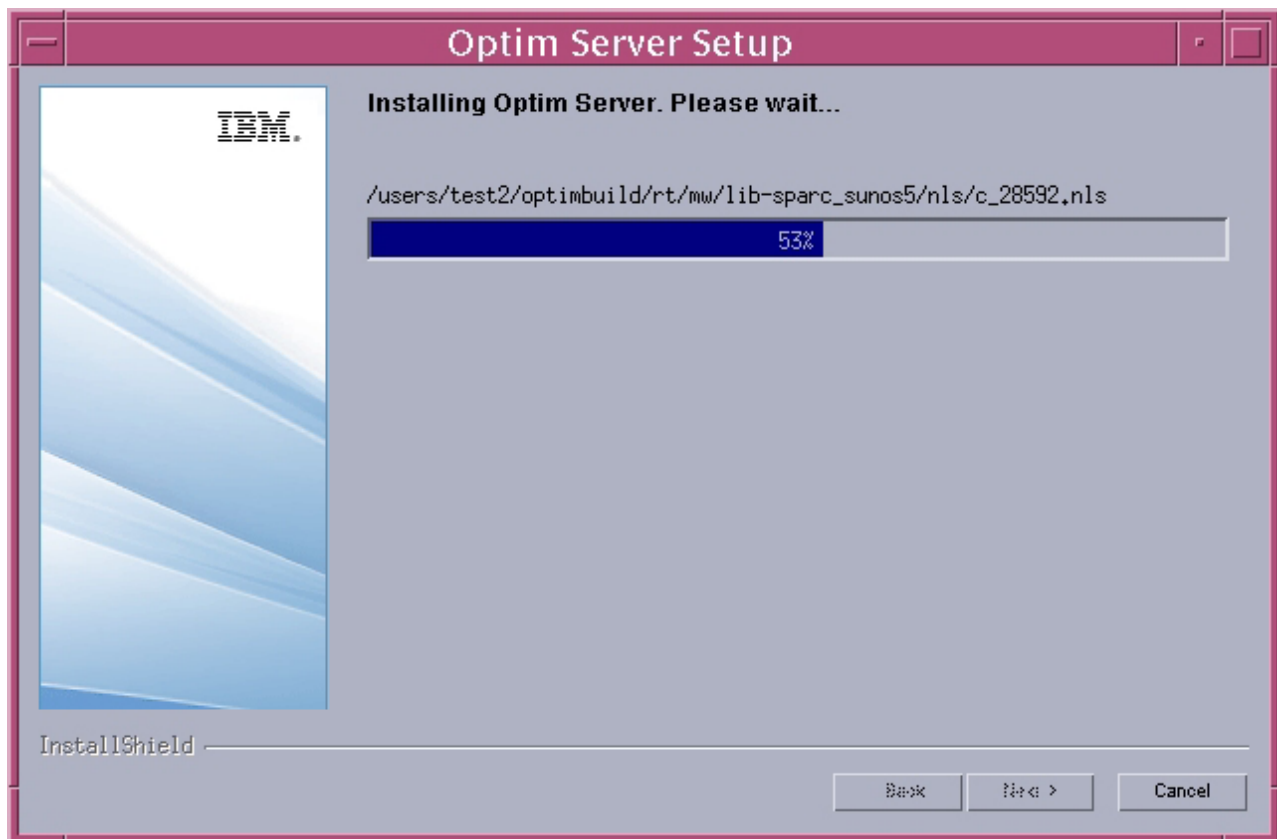
This section describes how to confirm your destination location and the features selected for installation.

Setup displays the destination location, the features selected for installation, and the space required for your confirmation. To change the destination or selection of features, click **Back** to return to the previous dialog.



To begin the installation, click **Next**.

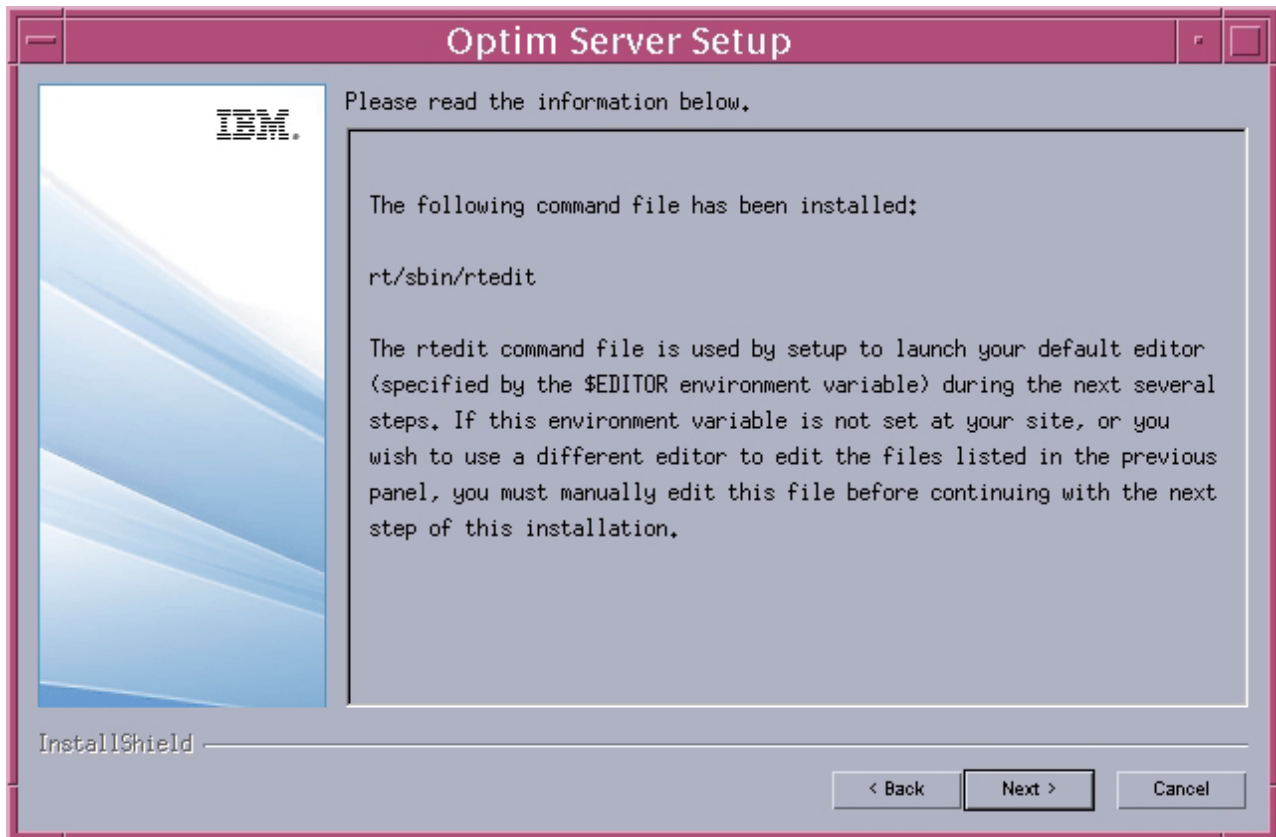
A progress indicator allows you to monitor the progress of the installation.



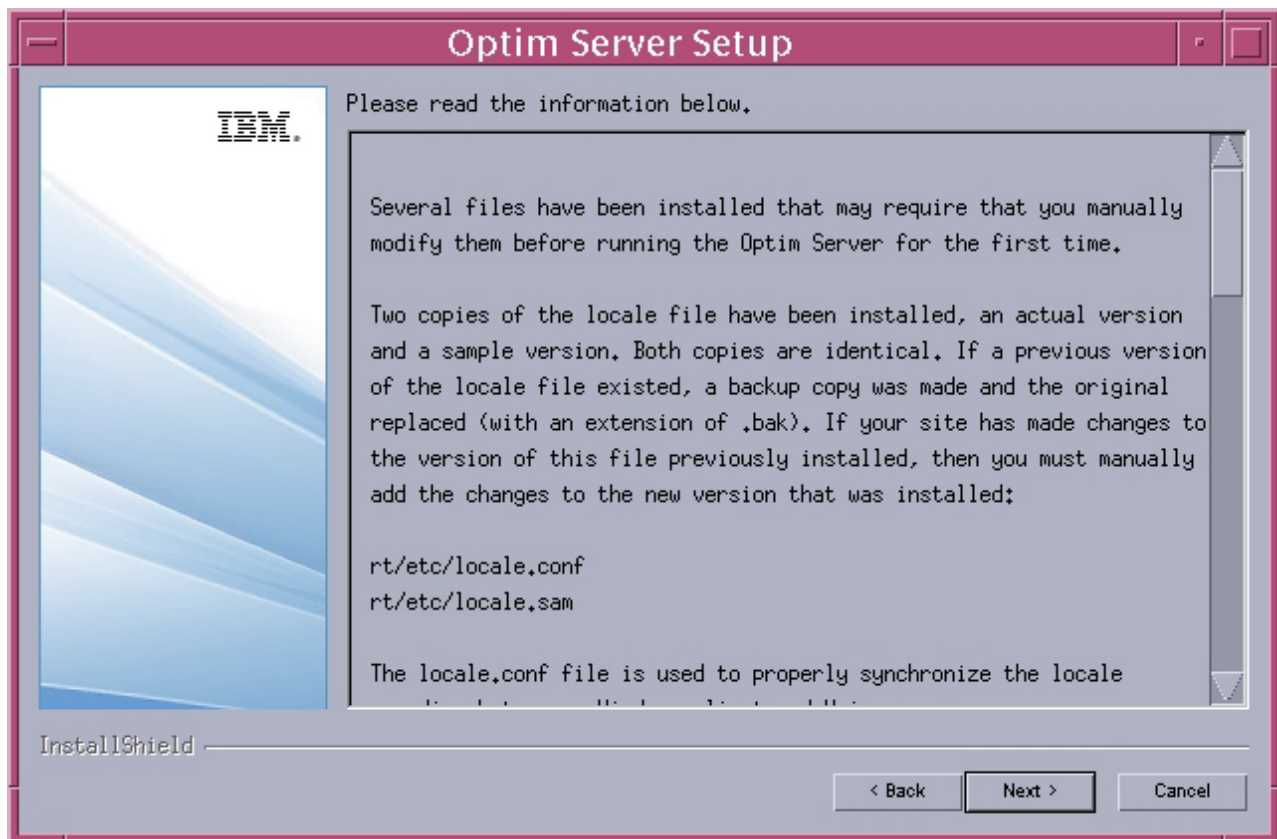
Edit Scripts and Configuration Files - Red Hat Linux 3 or Solaris 8

This section describes how to edit scripts and configuration files.

You must modify shell scripts and configuration files before you can start the application the first time. Setup installs the `rtedit` command file to launch your default editor so that you can make these modifications.



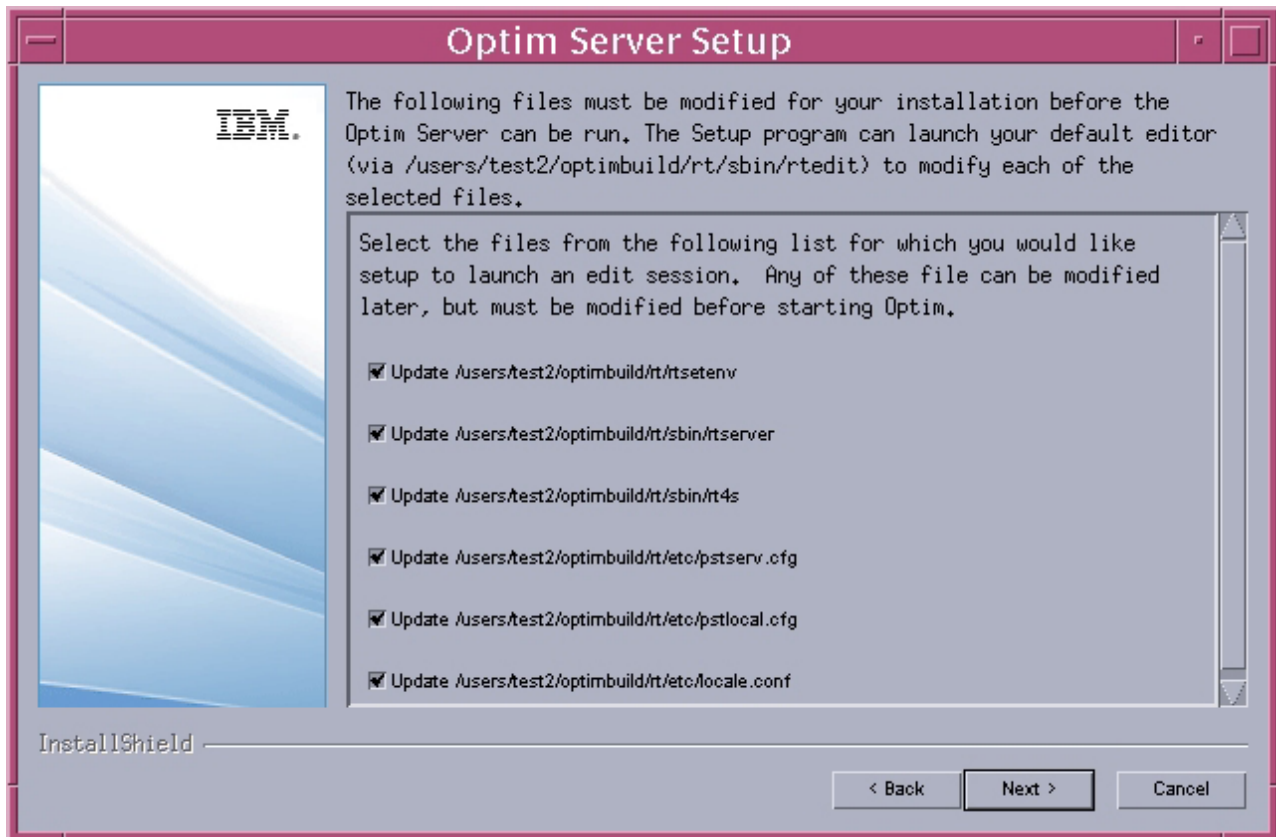
When you click **Next**, setup displays information about the shell scripts and configuration files to help you select files to modify. You can scroll the display to read information about each file.



For new installations, a working version and a sample version of each shell script and configuration file are installed. The sample version of each file has the file extension .sam.

For upgrade installations, only the sample scripts and files are installed, and existing samples are automatically renamed with the extension .bak. This feature prevents overwriting of your working scripts and files, and allows you to compare existing versions with new sample versions.

When you click **Next**, you are prompted to edit each shell script and configuration file.



- The RTSETENV shell script is included in a user “.profile” or “.login” script to define the operating environment for the Server. This script sets up the Server daemon or command-line environment on login. A UNIX environment requires certain environment variables to create default settings. For detailed information needed to edit this file, refer to “RTSETENV Shell Script” on page 346.
- The RTSERVER shell script contains a series of useful commands that allow you to manipulate the Server process. This script does not need modification. For detailed information needed to edit this file, refer to “RTSERVER Shell Script” on page 347.
- The RT4S shell script is used to start or stop the Server from init(1) processing. This script should be executed only as part of the system boot procedure. Generally, the script does not need modification, unless the Server is installed in a directory other than the default directory, /opt/IBM/Optim, or the Server will be run under a user account other than root. For detailed information needed to edit this file, refer to “RT4S Shell Script” on page 348.
- The pstserv configuration file (pstserv.cfg) is used to configure the system to run the Server daemon. Before you run the Server daemon, you must modify the file to reflect your site requirements. For detailed information needed to edit this file, refer to “Pstserv Configuration File” on page 328.
- The pstlocal configuration file (pstlocal.cfg) is used to configure the system for running the Command Line Utility. For detailed information needed to edit this file, refer to “Pstlocal Configuration File for the Command Line Utility” on page 336.
- The locale.conf file provides locale conversion information between platforms. You can use this file to provide additional locale conversion information. For detailed information needed to edit this file, refer to “LOCALE.CONF Conversion File” on page 349.

If you choose to update a file, the default text editor is launched, displaying the corresponding file.

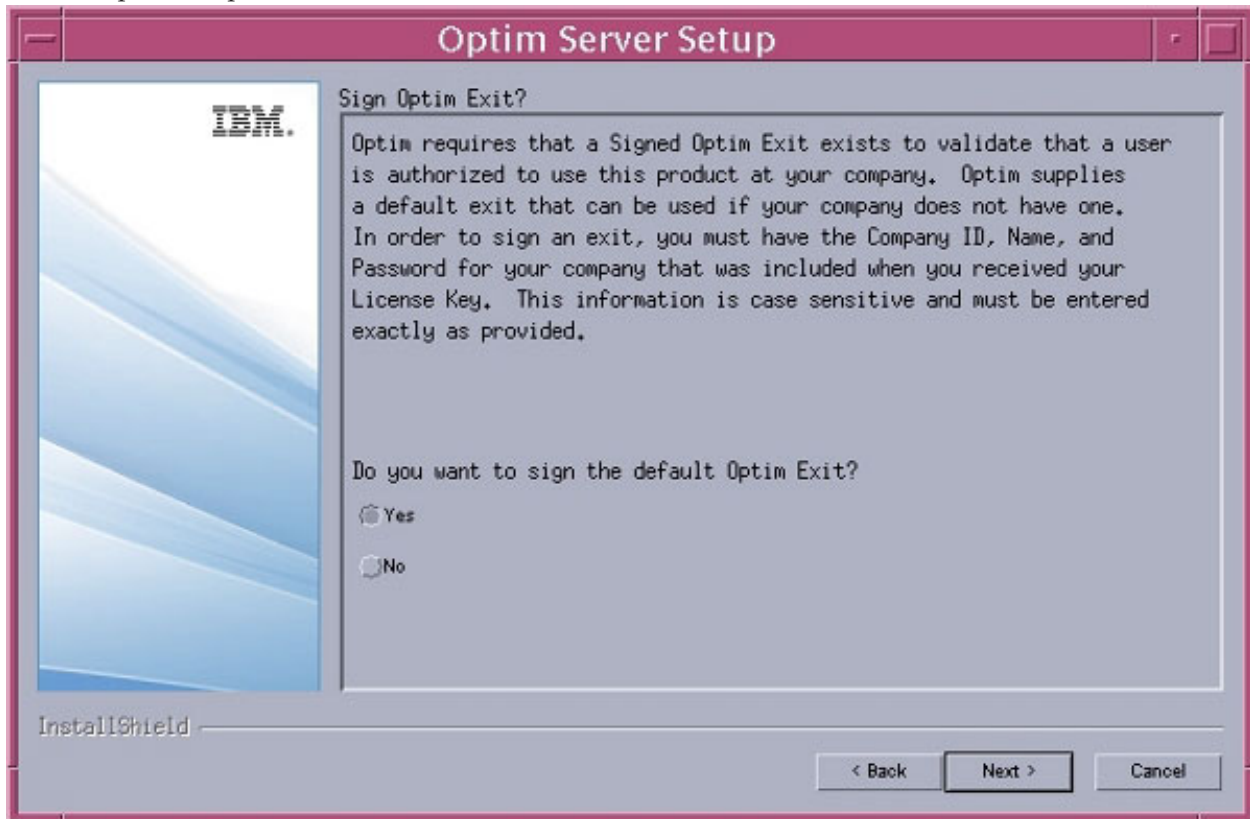
```
#####  
# locale.conf  
#  
#           Locale conversion file for  
#           IBM's  
#           Optim Server Component  
#####  
# Basic format  
#  
#   '#' is start of comment, everything to the right is ignored  
#   Blank lines are ignored  
#   Use escape (\) and any character to produce that character (\# == '#')  
#  
#   A line is broken into a series of space-delimited words  
#   If the word contains space the enclose it in double quotes (").  
#  
# Normal locale entries are four words  
#  
#   The first word is the UNIX Locale name  
#   The second word is the WINDOWS Locale name  
#   The third word is the WINDOWS LCID  
#   The forth word contains W and/or U  
#       "W" means the locale could be supported in Windows  
#       "U" means the locale could be supported in Unix (via MainWin)  
#
```

Note: The installation program saves setup information in a file named vpd.properties, located in your home directory. This file contains information about the current Optim installation like the options that have been installed and the Optim install directory. If you manually delete the Optim directory, you should also delete this file.

Sign the Optim Exit - Red Hat Linux 3 or Solaris 8

This section describes how to sign the Optim exit.

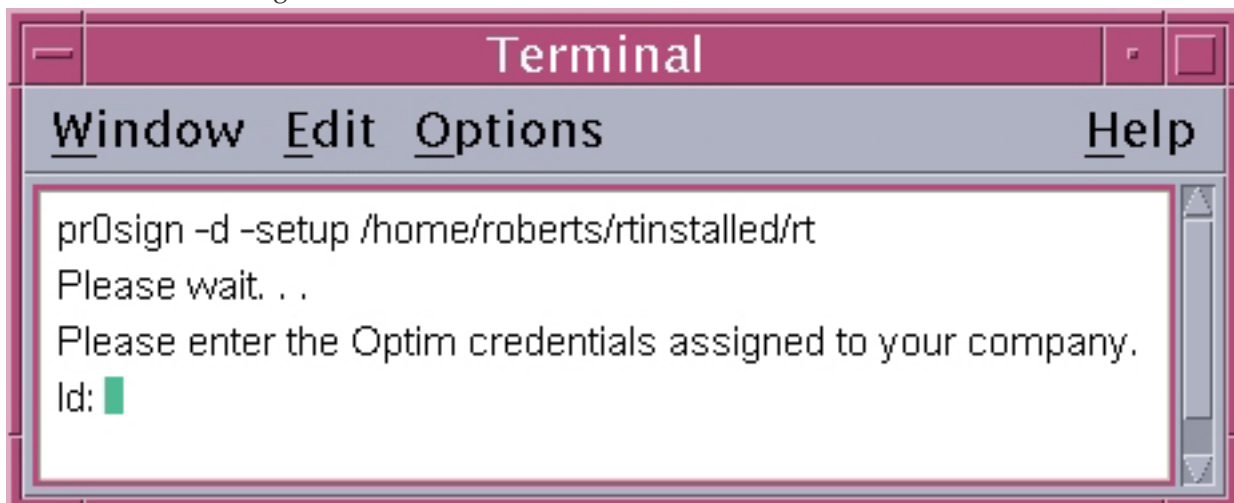
When the Sign Optim Exit dialog appears, click **Yes** to sign the default exit included with Optim or click **No** to skip this step; then click **Next**.



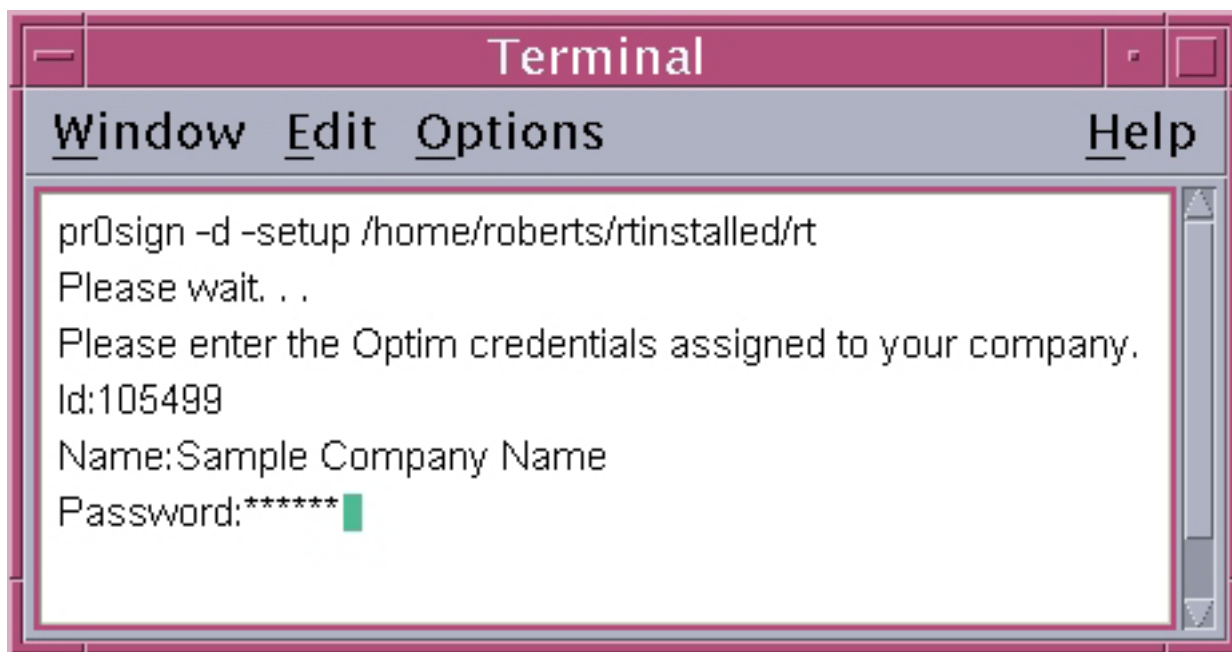
You must sign the default exit or a custom exit supplied by you to use Optim, but you can only sign the default exit during setup. (See "The Optim Exit in UNIX" on page 356 for detailed information on the Optim default exit and user-supplied exits.)

Note: If you want to sign a custom, user-supplied exit, you must run a script file, called `opmusign`, following installation, as described in "Signing a User-Supplied Exit in UNIX - Red Hat Linux 3 or Solaris 8" on page 364.

If you select **Yes** on the Sign Optim Exit dialog to sign the default exit, setup will open a separate terminal window to sign the default exit.



Type your company credentials when prompted for that information. Your company credentials consist of the company ID, Name, and Password assigned to your organization when you received Optim. All three entries are case-sensitive, and you must enter them in the format provided to you. Press Enter after each prompt to display the next prompt. After you specify your company ID, for example, press Enter to display the Name prompt.

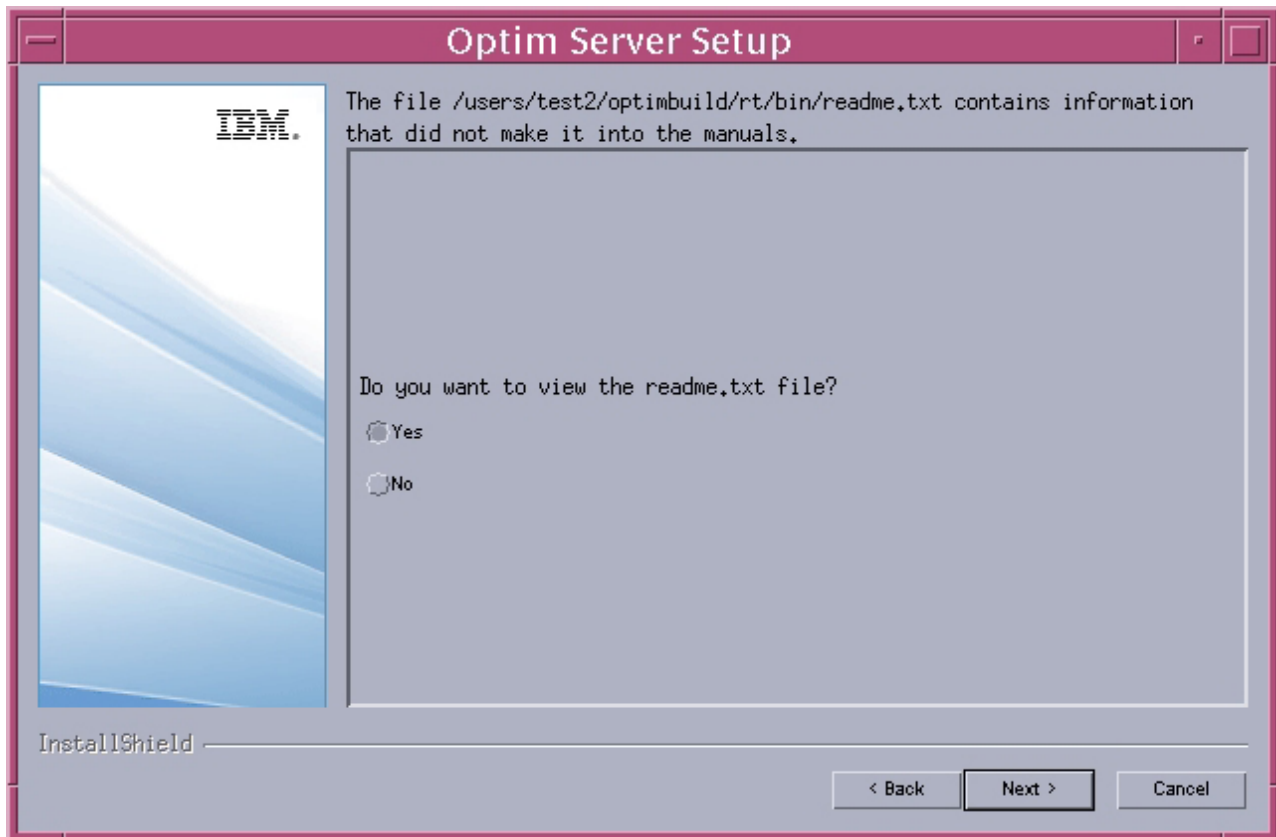


Note: If any of the company credentials you specified are incorrect, an Invalid Credentials Specified dialog will prompt you to enter your credentials again, as described in "The Invalid Credentials Specified Dialog - Red Hat Linux 3 or Solaris 8" on page 358. If there are any other exit-related problems, a Sign Optim Exit Failed dialog will prompt you to correct those errors, as described in "The Sign Optim Exit Failed Dialog - Red Hat Linux 3 or Solaris 8" on page 359.

Read Me - Red Hat Linux 3 or Solaris 8

This section describes the Read Me file.

After editing and saving the files, you are prompted to view the readme.txt file, containing installation notes and information.

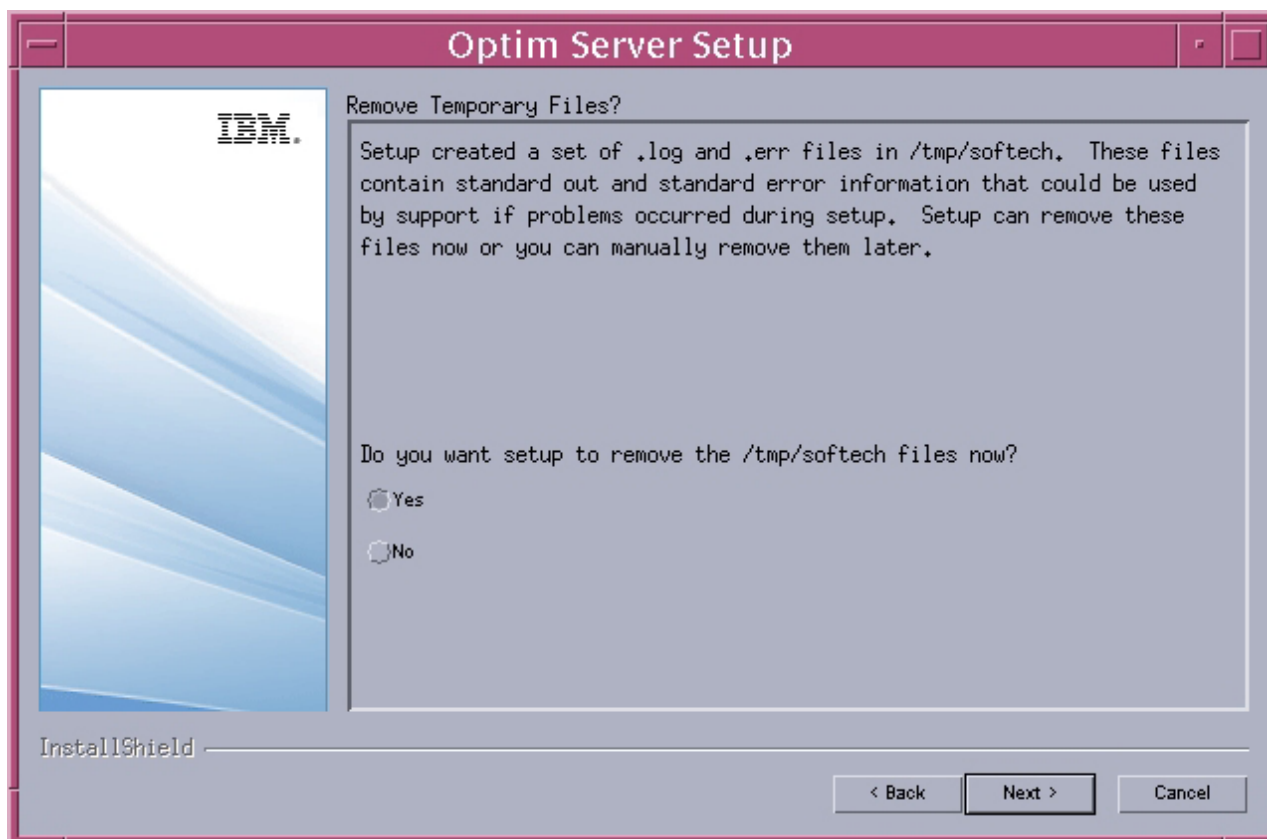


Remove Temporary Files - Red Hat Linux 3 or Solaris 8

This section describes how to remove temporary files.

During installation, Optim creates several temporary log and error files, and stores those files in a /tmp/softech directory. Optim support personnel use those files to diagnose any problems encountered during installation. If installation was successful, you should remove those files when prompted to do so on the Remove Temporary Files dialog. (If you do not delete the temporary files and you do another install using a different user ID, the old files will prevent the new files from being created.)

Select **Yes** and click **Next** on the Remove Temporary Files dialog to delete the temporary .log and .err files stored in the /tmp/softech directory, as indicated below.

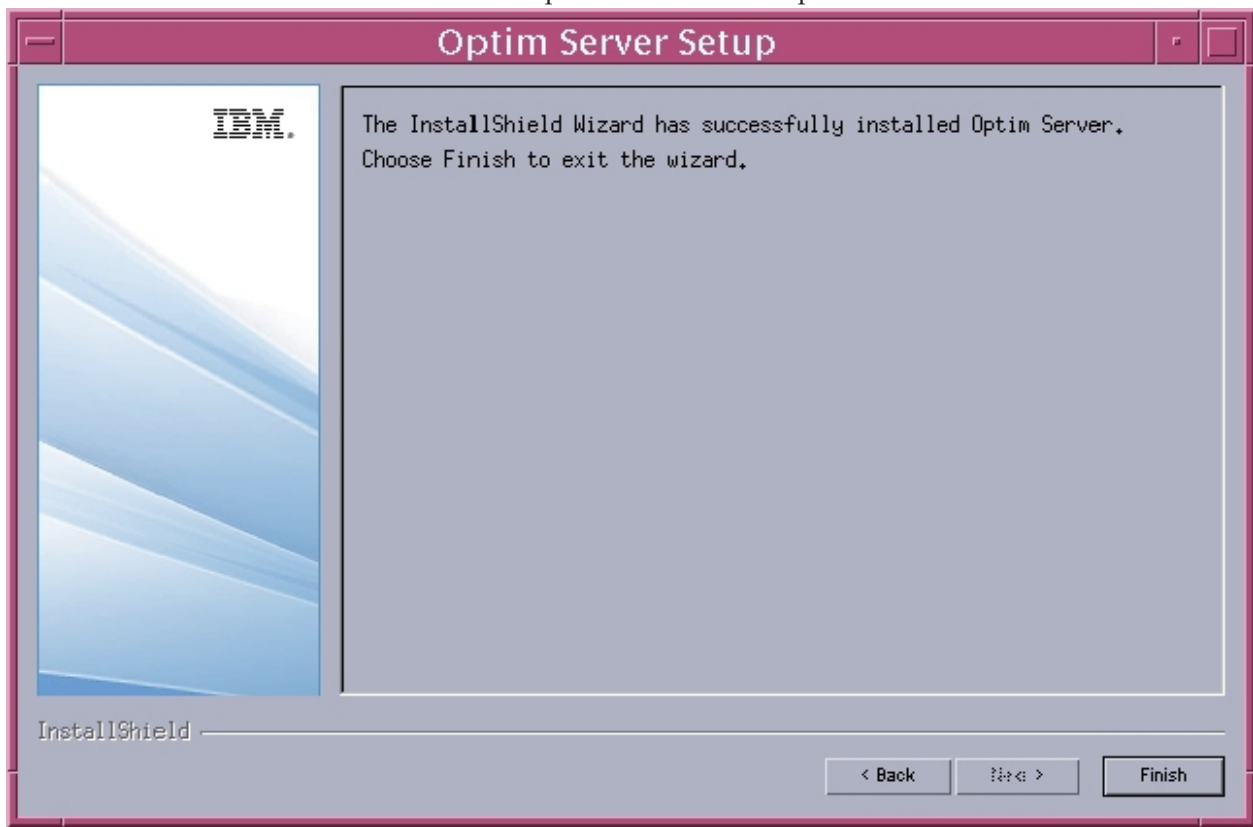


Note: The `/tmp/softech` directory only contains files concerning the installation of Optim. It does not contain any files concerning the signing of the default exit; that information is stored in the `rt/temp` directory, so if installation was successful, you should delete the temporary files in the `/tmp/softech` directory, even if you did not sign the default exit.

Setup Complete - Red Hat Linux 3 or Solaris 8

This section describes how the installation process completes.

At the conclusion of the installation, a dialog indicates the Server has been successfully installed. Click **Finish** and close the console window to complete the installation process.



Command Line Installation - Red Hat Linux 3 or Solaris 8

To install the Server from the command line, use the setup options file, `setuptopts`, located on the product DVD.

Editing `setuptopts` - Red Hat Linux 3 or Solaris 8

To install the Server, mount the product DVD and copy `setuptopts` from the root directory to a location for which you have write access. You can edit the file using an ASCII editor. Enable a keyword by removing the leading `###` characters from the line. Define a parameter for a keyword by editing the characters after the `'=`.

Running the Setup Process - Red Hat Linux 3 or Solaris 8

Run the setup process from the command line, using the following command:

```
./setup -silent -options <file-name>
```

For example, if `setuptopts` is in the `/users/name` directory, enter the following:

```
./setup -silent -options /users/name/setuptopts
```

If you are upgrading or installing on a machine that has one or more Servers installed in another directory, you must manually shut down all Server processing. To shut down a Server, you must log on as the processing user account for each Server and run the following command before manually shutting the Server down.

```
rt/mw/bin/mwadm stop
```


Syntax Conventions - Red Hat Linux 3 or Solaris 8

The syntax conventions used to describe the setupopts keywords are as follow:

parameter

Parameters can be entered in UPPER, lower, or Mixed case. Defaults are shown in **bold** text.

text Variable parameter text is shown in lower-case italics.

[] Delimiter for optional keywords or parameters.

{ } Delimiter for a choice from which you must select one.

| Separates options.

Keywords - Red Hat Linux 3 or Solaris 8

```
-W LicensePanel.selection={ 1 | 2 }
-P installLocation=installdirectory
[ -P ProgramFeature.active=[ true | false ] ]
[ -P SampleFeature.active=[ true | false ] ]
[ -P ODMFeature.active=[ true | false ] ]
[ -W ConfigureODMPromptPanel.ConfigureODMChoice=[ 1 | 2 ] ]
[ -W ODMLicensePanel.ODMLicenseField=licensepath ]
[ -W UpdateFilesPanel.Update_rtsetenv=[ 0 | 1 ] ]
[ -W UpdateFilesPanel.Update_rtserver=[ 0 | 1 ] ]
[ -W UpdateFilesPanel.Update_rt4s=[ 0 | 1 ] ]
[ -W UpdateFilesPanel.Update_pstserv=[ 0 | 1 ] ]
[ -W UpdateFilesPanel.Update_pstlocal=[ 0 | 1 ] ]
[ -W UpdateFilesPanel.Update_locale=[ 0 | 1 ] ]
[ -W View_Readme.Value=[ 0 | 1 ] ]
```

-W LicensePanel.selection=

The Optim license agreement. You must accept the license agreement to continue the installation.

1 "I accept the terms of the license agreement."

2 " I do not accept the terms of the license agreement."

-W LicensePanel.selection=1

-P installLocation=

The directory path for installing the Server. If the directory name contains spaces, enclose it in double quotation marks.

-P installLocation=/opt/IBM/Optim/rt

-P ProgramFeature.active=

Install the Server. This option installs all files needed to run the Server in a Solaris, HP-UX, or AIX operating environment, including shell scripts and configuration files.

true Install the Server.

false Do not install the Server.

-P ProgramFeature.active=true

-P SampleFeature.active=

Install sample Extract Files.

true Install sample Extract Files.

false Do not install the sample Extract Files.

-P SampleFeature.active=true

-P ODMFeature.active=

Install the Optim Open Data Manager (ODM) interface feature, which requires a product license. If you select this option, refer to Appendix F, "Open Data Manager," on page 449 for ODM configuration instructions.

true Install the Optim ODM interface feature.

false Do not install the Optim ODM interface feature.

Note: If you set -P ODMFeature.active=true, you must define a value for

-W ConfigureODMPromptPanel.ConfigureODMChoice

.

-P ODMFeature.active=false

-W ConfigureODMPromptPanel.ConfigureODMChoice=

If the Optim ODM feature is installed, indicate when it is configured.

1 Configure ODM now. This option prompts you for the Attunity license file and automatically installs the ODM Server.

2 Configure ODM later. This option copies the ODM Server installation files to your machine. To complete the ODM Server installation, you must install the ODM Server and register the Attunity license manually.

-W ConfigureODMPromptPanel.ConfigureODMChoice=2

Note: If you choose to configure ODM now,

-W ConfigureODMPromptPanel.ConfigureODMChoice=1, you must define a value for

-W ODMLicensePanel.ODMLicenseField.

-W ODMLicensePanel.ODMLicenseField=

If you choose to configure ODM now, -W ConfigureODMPromptPanel.ConfigureODMChoice=1, enter the fully qualified name for the Attunity license file. If the directory contains spaces, enclose it in double quotation marks.

Note: If you do not have an Attunity license file, enter

-W ConfigureODMPromptPanel.ConfigureODMChoice=2.

-W ODMLicensePanel.ODMLicenseField=/opt/ODM/license.txt

-W UpdateFilesPanel.Update_rtsetenv=

This keyword allows you to edit the RTSETENV shell script during the installation process, using the default text editor. The RTSETENV shell script is included in a user “.profile” or “.login” script to define the operating environment for the Server. This script sets up the Server daemon or command line environment on login. The operating environment requires certain environment variables to create default settings. For detailed information needed to edit this file, refer to “RTSETENV Shell Script” on page 346.

0 Do not edit RTSETENV during installation.

1 Edit RTSETENV during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W UpdateFilesPanel.Update_rtsetenv=0

-W UpdateFilesPanel.Update_rtserver=

This keyword allows you to edit the RTSERVER shell script during the installation process, using the default text editor. The RTSERVER shell script contains a series of useful commands that allow you to manipulate the Server process. This script does not need modification. For detailed information needed to edit this file, refer to “RTSERVER Shell Script” on page 347.

0 Do not edit RTSERVER during installation.

1 Edit RTSERVER during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W UpdateFilesPanel.Update_rtserver=0

-W UpdateFilesPanel.Update_rt4s=

This keyword allows you to edit the RT4S shell script during the installation process, using the default text editor. The RT4S shell script is used to start or stop init(1) processing for the Server. This script should be executed only as part of the system boot procedure. Generally, the script does not need modification, unless the Server is installed in a directory other than the default directory, /opt/IBM/0ptim, or the Server will be run under a user account other than root. For detailed information needed to edit this file, refer to "RT4S Shell Script" on page 348.

0 Do not edit RT4S during installation.

1 Edit RT4S during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W UpdateFilesPanel.Update_rt4s=0

-W UpdateFilesPanel.Update_pstserv=

This keyword allows you to edit the pstserv configuration file during the installation process, using the default text editor. The pstserv configuration file (pstserv.cfg) is used to configure the system to run the Server daemon. Before you run that daemon, you must modify the file to reflect your site requirements. For detailed information needed to edit this file, see "Pstserv Configuration File" on page 328.

0 Do not edit pstserv during installation.

1 Edit pstserv during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W UpdateFilesPanel.Update_pstserv=0

-W UpdateFilesPanel.Update_pstlocal=

This keyword allows you to edit the pstlocal configuration file during the installation process, using the default text editor. The pstlocal configuration file (pstlocal.cfg) is used to configure the system for running the Command Line Utility. For detailed information needed to edit this file, see "Pstlocal Configuration File for the Command Line Utility" on page 336.

0 Do not edit pstlocal during installation.

1 Edit pstlocal during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W UpdateFilesPanel.Update_pstlocal=0

-W UpdateFilesPanel.Update_locale=

This keyword allows you to edit the locale.conf file during the installation process, using the default text editor. The locale.conf file provides locale conversion information between platforms. You can use this file to provide additional locale conversion information. For detailed information needed to edit this file, see "LOCALE.CONF Conversion File" on page 349.

0 Do not edit locale.conf during installation.

1 Edit locale.conf during installation. (This option will cause an error unless installing from a graphical interface.)

-W UpdateFilesPanel.Update_locale=0

-W View_Readme.Value=

This keyword allows you to open the readme.txt file, using the default text editor. The readme.txt file contains installation notes and information.

0 Do not open readme.txt during installation.

1 Open readme.txt during installation. (If you are not installing from a graphical interface, this option will cause an error.)

-W View_Readme.Value=0

Configuration

Configuration files and shell scripts are installed with the executable files when you install the Server in a supported UNIX environment. These objects establish defaults for the Server and must be customized to reflect your network environment. Use a text editor (for example, vi, emacs, CDE Text Editor, textedit, or xedit) to modify these files.

Configuration Files

Configuration files are ASCII text files and are installed in the /etc directory that is subordinate to the PSTHOME directory. PSTHOME is an environment variable, set during installation, that points to the directory in which the Server is installed.

The configuration file names for the Server are:

pstserv.cfg

Configures prosvce, the Server daemon.

pstlocal.cfg

Configures local command line.

The appropriate Configuration file is loaded and validated when pr0svce or the Command Line Utility starts up. You can also use pr0svce -v to validate pstserv.cfg or pr0cmd -v to validate pstlocal.cfg.

To reload the configuration file for prosvce while it is running, use pr0svce -u from a console under the user account for the daemon (or use pr0svce -u *userid* from root). After all clients have logged off, the file is read, reloaded, and validated. A console message and system log verify the file has been loaded.

Note: Use pr0svce -L (or use pr0svce -L *userid* from the root account) to determine if the system is waiting to reload.

Shell Scripts

The installed shell scripts are:

RTSETENV

Defines the operating environment for the Server. Installed in the PSTHOME directory and designed to be included in a user .profile or .login script to set up the environment for the Server or command line on login.

RTSERVER

Provides commands that allow you to manipulate the Server process. Installed in /sbin, subordinate to the PSTHOME directory.

RT4S Used to start or stop the Server from init processing. Installed in /sbin, subordinate to the PSTHOME directory, RT4S should be executed only as part of the system boot procedure.

Conventions

The following conventions are used in shell scripts and .cfg files:

- One parameter per line.
- Blank lines and leading and trailing blanks within a line are ignored.
- Use double quotes or the escape character (\) to pass a special character to processing:
 - Enclose a string that includes '#' in double quotes (e.g., "text#here").
 - To include a double quote (") within a quoted string, use the escape character, \ (e.g., \").
 - Precede a special character that is not in a quoted string with the 'escape' character, \ (e.g., \#, \\).

- References to environment variables are in the form `${environmentvariablename}`. An environment variable that does not exist equates to a NULL string (" "). For example, `AAA${NOT_EXIST}BBB` is treated as `AAABBB`.
- Parameters and keywords are not case-sensitive. Directories, file names, User IDs, and passwords are case-sensitive.
- Keywords shown as 0 (zero) in the following text can also be entered as *f*, or *false*, while keywords shown as 1 can be entered as *t*, or *true*.
- Comments are allowed after an entry and must begin with '# '.

Syntax

The syntax conventions used to describe the configuration files, shell scripts, and commands are:

parameter

Parameters and keywords can be entered in UPPER, lower, or Mixed case.

text Variable text is shown in lower-case italics.

() Delimiter to group a series of qualifiers.

[] Delimiter for optional parameters or settings.

{ } Delimiter for a choice from which you must select one.

< > Delimiter for a choice from which you may select any or none.

| Separates options.

Pstserv Configuration File

The pstserv configuration file is used to configure the system for running pr0svce, the Server daemon. An example of pstserv.cfg is in the /etc subdirectory to the PSTHOME directory.

Before you run pr0svce, modify the following parameters to reflect your site requirements, as applicable. In the following syntax, defaults are shown in **bold** text:

```
[ customerid [ n | 000000 ] ]
[ customername [ custname | xxxxx ] ]
[ license [ xxxxxx-xxxxxx-xxxxxx-xxxxxx-xxxxxx |
000000-000000-000000-000000-000000 ] ]
[ rtservername [ servername | localcomputername ] ]
tempdir directory
datadir directory
[ datadirclient [ 0 | 1 ] ]
[ archivedir [ directory | datadir ] ]
[ archivediridx [ directory | archivedir ] ]
[ archivebroidx [ directory | archivedir ] ]
[ maxprocesses [ n | 48 ] ]
[ tracedays [ n | 5 ] ]
[ limitaccess [ 0 | 1 ] ]
[ allowdir path ] ]
[ pstlogon [ client | server ] ]
[ dbaliaslogon [ client | server ] ]
[ delfileinterval [ n | 10 ] ]
[ filelogon {client | local | server ( userid { password | ? } ) } ]
[ filemode < ALL | RUSR | RGRP | ROTH | WUSR | WGRP |
WOTH | RALL | WALL > | [ SYSTEM ] ]
[ endpoint [ tcpportnumber | 1024 ] ]
pstdir ( name dbmstype dbmsvr dbqual connectstring
{dbname | * userid { password | ? } } )
dbalias ( pstdir name { connectstring | * [userid { password | ? } ] } )
[ loader ( ( ( pstdir dbalias ) | ( * dbmstype ) )
pathtoloader [teradatatype { 1 | 0 } ]
[ teradataconfig { * | pstdir dbalias }
tdatasvr userid password rowcntgle n ]
```

```
[excpntnbldid ]]
[auditfacility {true | false } [ Audit OptimDirName1 { enabled | disabled }
 [ retention-days n] [ Audit RecordLimit n]
 [ <FailureAction> { CONTINUE | STOP} ]
[adminemailnotify ( emailaddress= { success | information |
 warning | error | exception } [ n | 7 ] [ 0 | 1 ] [clear] ) ]
[archiveretentionpolicy ( { hh:mm | * } { pstdirectory | * } ) ]
[ centeraavail [ 0 | 1 ] ]
[ tivoliavail [ 0 | 1 ( nodename password ) ] ]
```

Keywords

customerid

Optim company customer identifier number assigned by IBM.

n Unique six-digit Company ID provided with Optim.

000000 The Optim demonstration ID. (Default)

customerid 611239

customername

Customer name.

custname

Company Name provided with Company ID and license key. (Up to 40 characters)

cccccccc

The demonstration name. (Default)

customername cccccccc

license

The license key.

Note: The license key is saved in the registry. This registry entry is replaced if you connect to an Optim directory with a more recent key. Therefore, you can remove this keyword after you start pr0svce the first time.

license key

The 5-part license key provided by IBM.

demonstration key

The Optim demonstration key, shown in the following example. (Default)

license 000000-000000-000000-000000-000000

rtservername

The name of the Server daemon as declared to all client machines. Processes initiated from a client machine and directed to the Server are executed if this name matches a name in the Product Configuration File used by the client or, for command line processes that explicitly require the Server, the Server parameter in pstlocal.cfg.

servername

1- to 15-character name

localcomputer name

The computer name. (Default)

rtservername *servername*

tempdir *directory*

Temporary Directory for temporary work and trace files. The directory must exist before starting the Optim daemon.

tempdir \${PSTHOME}/temp

datadir *directory*

Data Directory for Extract, Compare, Control, Export, and other process files for which a complete path is not provided. The directory must exist before starting the Optim daemon.

datadir \${PSTHOME}/data

datadirclient

Indicator for creating Data subdirectories for client data. Settings are:

0 or blank

Do not create client subdirectories. (Default)

1

Create client Data subdirectory as the default Data Directory when a client first connects to the Server.

datadirclient 1

archivedir *directory*

Directory for Archive Files for which the process request does not provide a complete path. Archive Files are stored in the Data directory (datadir) by default. The directory must exist before starting the Optim daemon.

archivedir \${PSTHOME}/archive

archivediridx *directory*

Archive Index Directory for Archive Index Files for which a complete path is not provided. Archive Index Files are stored in the Archive Directory (archivedir), or the Data directory (datadir), by default. The directory must exist before starting the Optim daemon.

archivediridx \${PSTHOME}/archiveidx

archivebroidx *directory*

Archive Browse Index Directory for Archive Browse Index Files for which a complete path is not provided. To expedite the retrieval of data, an Archive Browse Index File is created when a user browses archived data and joins tables. By default, Archive Browse Index Files are stored in the Archive Directory (archivedir) or the Data directory (datadir). The directory must exist before starting the Optim daemon.

archivebroidx \${PSTHOME}/archivebro

maxprocesses

Maximum number of processes that can run on the Server simultaneously. When the server reaches the maximum, an error message (Server too Busy) is displayed. Specify:

n A value from 10 to 48. Set the limit according to the capacity of the machine (CPU, disk space, network access speed, memory, etc.), noting that typically, a mirror validation process is created each time a client edits a process request that specifies the Server. Both processes run simultaneously. (For example, if a workstation initiates two processes simultaneously, the Server executes four processes.)

48 Default setting.

maxprocesses 48

tracedays

Number of days to retain trace files in the temporary work directory. Specify:

n A value from 2 to 30. Consider storage space limitations when deciding the number of days to retain the files.

5 Default setting.

tracedays 5

limitaccess

Option to limit Client access to data directories. Settings are:

0 or blank

Client can see all directories on this machine in Browse dialogs.

- 1 Limit client access to the Temporary (tempdir), Data (datadir), Archive (archivedir), Archive Index (archivediridx), Archive Browse Index (archivebroidx) directories and any directories specified in the allowdir parameter. (Default)

limitaccess 0

allowdir

Option to add a directory to the limitaccess list. Use allowdir for each additional directory. A valid entry is:

path A full directory path (you need not create the directory first)
allowdir */dir/subdir*

Note: Allowing access to the root directory is equivalent to setting limitaccess to 0.

pstlogon

The source of DBMS User ID and Password for Optim Directory access. Valid entries are:

client User ID and Password for the delegating client (i.e., from the **Server** tab in Personal Options or /PSTDIRUSERID and /PSTDIRPASSWORD from the command line). (Default)

server User ID and Password provided with pstdir keyword.

pstlogon client

dbaliaslogon

The source of DBMS User ID and Password for DB Alias access. Valid entries are:

client User ID and Password for the delegating client (i.e., from the **Server** tab in Personal Options or /USERID and /PASSWORD from the command line). (Default)

server User ID and Password provided with dbalias keyword.

dbaliaslogon client

delfileinterval

The interval in minutes for deleting Archive Files with an expired retention period after being recalled from secondary media.

n A value from 0 to 300. Specify 0 to prevent the deletion of recalled files.

10 Default setting.

delfileinterval 10

filelogon

The source of User ID and Password for file access. Valid entries are:

local User ID and Password used to start pr0svce. (Default)

client DBMS User ID and Password for the delegating client (i.e., from the **Server** tab in Personal Options or the server parameter in pstlocal.cfg).

server *userid password*

The provided User ID and Password apply for all delegated processes. Specify “?” as the password when a secure password is supplied in a password file. (See “Securing the Configuration Files” on page 353 for more information.)

Note: If the client or server keyword is used, the pr0svce daemon must be started under root authority.

filelogon local

filemode

Access permissions for Extract, Archive, and Control Files. Use any combination of the following:

ALL Read and Write permission for all users.

RUSR Read Permission for User.

RGRP Read Permission for the group that includes User.

ROTH
Read Permission for all users outside Group.

WUSR
Write Permission for User.

WGRP
Write Permission for the group that includes User.

WOTH
Write Permission for all users outside Group.

RALL Read permission for all users.

WALL Write permission for all users.

SYSTEM
The system default, typically Read and Write permission for the User, and Read-Only for Group and Other. (Default)

filemode system

- When filelogon is local, the user account under which the pr0svce daemon is started is User.
- When filelogon is client, the user that creates a file is User.
- When filelogon is server, the explicitly supplied user account is User.

endpoint

The TCP port that pr0svce monitors for RPC connections from clients. Valid settings are:

tcpportnumber

A numeric value from 1024 to 65534.

1024 The default setting.

endpoint 6736

pstdir

Connection information for an Optim directory. Use pstdir for each Optim directory that can be accessed on behalf of a client. Note that the Optim directory is created from a Windows machine using the Configuration program and that connection to the directory is not verified until required by a client.

name Name of the Optim directory.

dbmstype

Database Management System as DB2, Oracle, Sybase, or Informix.

dbmsver

DBMS version in the form *n.n*, *n.n.n*, or *ni*, as appropriate to the DBMS.

dbqual Creator ID, Schema Name, or Owner.

connectstring

Information defined to the DBMS client to connect to the database.

dbname

Name within connection. (Provide name if DBMS is Informix or Sybase ASE and pstlogon is client or specify '*' if pstlogon is server.)

userid password

User ID and password for DBMS logon. (Provide this information if pstlogon is server.)

Specify “?” as the password when a secure password is supplied in a password file. (See “Securing the Configuration Files” on page 353 for more information.) To use OS Authentication for Oracle, specify a forward slash (/) for userid and do not specify a password.

```
pstidir OPTIMDIR Oracle 9i APPPROD * USERID ?
pstidir OPTIMDIR DB2 8.1 APPPROD
```

dbalias

DB Alias information. Use dbalias for each DB Alias that the Server can access on behalf of a client. Note that a DB Alias is created from a Windows machine using the configuration program and the DB Alias information is not verified until a connection is required by a client.

pstidir Name of the Optim directory that includes the DB Alias. A pstidir entry for the referenced Optim Directory is required.

name Name of the DB Alias.

connectstring

Information needed by the DBMS to connect to the database (typically, the system name and port ID). (Enter “*” if the database designated by the DB Alias includes the Optim directory.)

userid password

User ID and password for DBMS logon. (Provide this information if dbaliaslogon is server.)

Specify “?” as the password when a secure password is supplied in a password file. (See “Securing the Configuration Files” on page 353 for more information.) To use OS Authentication for Oracle, specify a forward slash (/) for userid and do not specify a password.

```
dbalias OPTIMDIR DBALIAS * USERID ?
dbalias OPTIMDIR DBALIAS D0805
dbalias OPTIMDIR DBALIAS * USERID PASSWORD
```

loader The location of the DBMS loader for a delegated Load Request. You can identify a loader for a specific Optim Directory and DB Alias, or you can identify a default loader be used for any DB Alias within a DBMS.

pstidir The Loader is for a specific DB Alias. Enter the name of the Optim Directory that includes the DB Alias. The Optim Directory must be referenced in a pstidir parameter. This setting requires a dbalias name.

dbalias The Loader is for a specific DB Alias. Enter the name of the DB Alias. The DB Alias must be referenced in a dbalias parameter. This setting requires a pstidir name.

*** The Loader is the default for a DBMS. You must also provide a value for dbmstype.

dbmstype

DBMS type. Enter Oracle, Sybase, Informix or Teradata.

pathtoloader

Path to the executable loader file.

teradatatype { 1 | 0 }

For the Teradata loader, the load type. Specify 1 for Teradata FastLoad or 0 for Teradata MLoad.

teradataconfig

For the Teradata loader, use this keyword to specify Teradata configuration parameters.

Teradata parameters can be specified for a particular Optim directory and DB Alias. For example:

teradataconfig pstdir dbalias tdatasvr userid password rowcntgle n

You can specify Teradata configuration parameters to be used for any DB Alias in a DBMS. For example:

teradataconfig * tdatasvr userid password rowcntgle n

* The Teradata loader is the default for the Optim directory and DB Alias referenced in the loader keyword.

pstdir Name of the Optim directory.

dbalias DB Alias for the Optim directory.

tdatasvr
Name of the Teradata server.

userid User ID for the Teradata server.

password
Password for the Teradata server.

rowcntgle n
Row count to determine whether Teradata FastLoad or MLoad is used. Allowable values are 0 to 999,999,999. If you specify 0 or do not specify a value, MLoad is used. For any other value, FastLoad is used if the row count of the load file is greater than the value you specify for rowcntgle.

excpnttblcid
Default CID for creating an exception table.

loader * oracle /opt/oracle/816/bin/sqlldr
loader PSTDIR DBALIAS /opt/oracle/816/bin/sqlldr

auditfacility

Enable or disable the Audit Facility for all Optim Directories. This overrides any specification for individual Optim directories.

true Enable the Audit Facility.

false Disable the Audit Facility. This is the default.

Audit OptimDirName1

Enables or disables the Optim Audit Facility for the directory specified as *OptimDirName1*

enabled
Enable auditing for this directory.

disabled
Disable auditing for this directory. This is the default.

retention-days

Number of days for audit records to be retained.

n Value in the range 1 to 999,999,999,999. The default value is 2,555 days (7 years).

Audit RecordLimit

Sets the maximum for number of audit records maintained at any time.

n Value in the range 100 to 999,999,999,999. The default value is 100,000.

<FailureAction>

Action to be performed when the **Audit RecordLimit** is exceeded.

continue
Optim will continue to generate audit records. This is the default.

stop Optim will not generate audit records for processes.

adminemailnotify

Option to email “logged” messages reported to the Server syslog. Provide the email address and severity level. You can also provide options for resending messages.

emailaddress=

The email address to receive the message. If an address contains a space, the entire string for this attribute must be in quotes.

success

Send email notification for all processing messages including success. (For example, startup and termination.)

information

Send email notification for information or more severe messages.

warning

Send email notification for warning or more severe messages.

error Send email notification for error or more severe messages. (Default.)

exception

Send email notification for exception messages.

n A number of days, from 0 to 999, after which a message is resent for a persistent error or warning. Specify 0 to resend messages immediately.

0 or blank

Do not resend messages. (Default.)

1 Resend a notification for a persistent error or warning.

clear Clear messages to be resent when the Server starts.

```
adminemailnotify admin@company.net=error 0 false; admin2@company.net=success 7 true
```

archiveretentionpolicy

Option to scan Optim Directories for Archive Files with an expired retention period. If the retention period has expired, the Server will delete the Archive File, Archive Index File, Archive Index Browse File, Archive Directory entry, and Archive Files on backup devices. To delete backup files, you must use the `centeraavail` or `tivoliavail` parameters. NetWorker backups cannot be deleted.

hh:mm The time of day to scan the Optim Directories. Use 24-hour time format (for example, 1:30 p.m. is 13:30). Midnight is 00:00. Enter “*” to use the default, 00:01.

pstdirectory

The Optim Directories to scan. Separate multiple entries with a comma or space. Enter “*” for all Directories.

```
archiveretentionpolicy 01:00 pstdir1 pstdir2
archiveretentionpolicy 03:00 pstdir3 pstdir4
```

centeraavail

Use Centera with the Archive Retention Policy.

0 or blank

Do not delete backup files on Centera. (Default.)

1 Delete backup files on Centera.

```
centeraavail 1
```

tivoliavail

Use Tivoli with the Archive Retention Policy. (To use a Tivoli device, you must install the Tivoli client and API support on the machine where the Optim Server runs.)

0 or blank

Do not delete backup files on Tivoli. (Default.)

1 Delete backup files on Tivoli.

nodename
Identifier to access the Tivoli device.

password
Password to access the Tivoli device.

tivoliavail 0

Pstlocal Configuration File for the Command Line Utility

Unless a Command Line process is specifically directed to a Server, the process is executed locally and the settings in pstserv.cfg do not apply. Use the pstlocal configuration file to provide settings for these local processes. An example of pstlocal.cfg is in the /etc subdirectory to the PSTHOME directory.

Before using the Command Line Utility, modify the following parameters to reflect your requirements, as applicable. In the following syntax, defaults are shown in **bold** text:

```
[ customerid [ n | 000000 ] ]
[ customername [ name | xxxxxxx ] ]
[ license [ license key | 000000 ] ]
tempdir directory
datadir directory
[ archivedir [ directory | datadir ] ]
[ archivediridx [ directory | archivedir ] ]
[ archivebroidx [ directory | archivedir ] ]
[ tracedays [ n | 5 ] ]
[ server ( name address port userid { password | ? } domain ) ]
  pstdir ( name dbmstype dbmsver dbqual connectstring
    { dbname | * userid { password | ? } } )
dbalias ( pstdir name { connectstring | * [userid { password | ? } ] } )
[ loader ( ( ( pstdir dbalias ) | ( * dbmstype ) )
pathtoloader [ teradatatype { 1 | 0 } ]
[ teradataconfig { * | pstdir dbalias }
  tdatasvr userid password rowcntgle n ]
[ excptntblcid ] ]
[ auditfacility { true | false } ] [ Audit OptimDirName1 { enabled | disabled } ]
[ retention-days n ] [ Audit RecordLimit n ]
[ <FailureAction> { CONTINUE | STOP } ]
[ allowlocktbls [ 0 | 1 ] ]
[ cmmxshuffleretries [ n | 10 ] ]
[ codepage [ codepgenum | db2default ] ]
[ dbconnections [ 0 | 1 n | 1 maximum ] ]
[ formatnumerics [ 0 | 1 ] ]
[ maxcommitfreq [ n | 200 ] ]
[ maxextractrows [ n | 100000 ] ]
[ onlyidxsearch [ 0 | 1 ] ]
[ orausearraydelete [ 0 | 1 ] ]
[ reviewdelafterarchive [ 0 | 1 ] ]
[ reportdir [ directory | unixtempdir ] ]
[ reportlevel [ 0 | n ] ]
[ centeraallowaltret [ 0 | 1 ] ]
[ centeraavail [ 0 | 1 ] ]
[ centeraretention [ none | default | interval | infinite ] ]
[ centeradays [ 0 | n ] ]
[ centerayears [ 0 | n ] ]
[ networkeravail [ 0 | 1 ] ]
[ tivoliavail [ 0 | 1 [ userid { password | ? } ] ] ]
[ rmfixedsegsz [ 0 | n ] ]
[ rmremsegsz [ 10 | n ] ]
[ scriptmaxlines [ 500 | n ] ]
[ scriptprefixout [ 0 | 1 ] ]
[ scriptshowfullcol [ 0 | 1 4 4 | 1 ln rn ] ]
[ scriptshowfulltbl [ 0 | 1 4 4 | 1 ln rn ] ]
[ scriptwarnmissing [ 0 | 1 ] ]
[ wormdeviceallowaltret { 0 | 1 } ]
```

```
[ wormdeviceretention { none | interval | maximum } ]
[ wormdevicedays [ 0 | n ]
[ wormdeviceyears [ 0 | n ]
[ sybaseunchain { active | inactive | defaultactive | defaultinactive } ]
[ uncommittedread { active | inactive | defaultactive |
  defaultinactive } ]
```

Keywords

customerid

Company identifier.

n Unique six-digit Company ID provided with Optim.

000000 The Optim demonstration ID. (Default)

customerid 000000

customername

Customer name.

name Company Name provided with Company ID and license key. (Up to 40 characters)

xxxxxxx

The Optim demonstration name. (Default)

customername xxxxxxx

license

The Optim license key.

Note: The license key is saved in the registry. This registry entry is replaced if you connect to an Optim Directory with a more recent key. Therefore, you can remove this keyword after you start pr0svce the first time.

license key

The 5-part license key provided by IBM.

demonstration key

The Optim demonstration key, shown in the following example. (Default)

license 000000-000000-000000-000000-000000

tempdir

Directory for temporary work and trace files.

directory

Name of the directory for temporary work and trace files. The directory must exist before starting the Optim daemon.

tempdir \${PSTHOME}/temp

datadir

Directory for Extract, Compare, Control, Export, and other process files for which a complete path is not provided. The directory must exist before starting the Optim daemon.

directory

Name of the directory for Extract, Compare, Control, Export and other process files.

datadir \${PSTHOME}/data

archivedir

Directory for Archive Files for which the process request does not provide a complete path.

Archive Files are stored in the Data directory (datadir) by default. The directory must exist before starting the Optim daemon.

archivedir \${PSTHOME}/archive

archivediridx

Archive Index Directory for Archive Index Files for which a complete path is not provided.

Archive Index Files are stored in the Archive Directory (archivedir), or the Data directory (datadir), by default. The directory must exist before starting the Optim daemon.

archivediridx \${PSTHOME}/archiveidx

archivebroidx

Archive Browse Index Directory for Archive Browse Index Files for which a complete path is not provided. The directory must exist before starting the Optim daemon. To expedite the retrieval of data, an Archive Browse Index File is created when a user browses archived data and joins tables. By default, Archive Browse Index Files are stored in the Archive Directory (archivedir), or the Data directory (datadir).

archivebroidx \${PSTHOME}/archivebro

tracedays

Number of days to retain trace files in the temporary work directory.

n A value from 2 to 30. The default is 5. Consider storage space limitations when deciding the number of days to retain the files.

tracedays 5

server Connection for Command Line processes that are not executed locally but, instead, are targeted to a Server. You can omit this keyword if, for the targeted Server, file access is limited to a specific Windows user account or the filelogon value is server or local.

name Name of the Server. The target Server must support a tcp/ip connection.

address The tcp/ip network address for the target Server, in the form 1.1.1.1.

port The numeric tcp/ip port number for the target Server, as a value from 1 to 65534.

userid password

User ID and password needed to logon to a target Server set up to receive file logons from "client" or for which the filelogon keyword in pstserv.cfg is set to client.

Specify "?" as the password when a secure password is supplied in a password file. (See "Securing the Configuration Files" on page 353 for more information.) To use OS Authentication for Oracle, specify a forward slash (/) for *userid* and do not provide a password.

domain Domain needed to validate User ID and password for access to a Server on Windows.

Note: If the user is validated as a local user on a Server, enter the Server name.

server optuser 172.16.8.76 1024 rt password test.dom

pstdir Connection information for an Optim Directory. Use pstdir for each Optim Directory that can be accessed for processing initiated from the command line. Note that the Optim Directory is created from a Windows machine using the Configuration program and that connection to the Directory is not verified until required by a client.

name Name of the Optim Directory.

dbmstype

Database Management System as DB2, Oracle, Sybase, or Informix.

dbmsver

DBMS version in the form *n.n*.

dbqual Creator ID, Schema Name, or Owner.

connectstring

Information defined to the DBMS client to connect to the database.

dbname

Name within connection. (Provide name if DBMS is Informix or Sybase ASE and pstlogon is client or specify "*" if pstlogon is server.)

userid password

User ID and password for DBMS logon. (Provide this information if pstlogon is server.)

Specify “?” as the password when a secure password is supplied in a password file. (See “Securing the Configuration Files” on page 353 for more information.) To use OS Authentication for Oracle, specify a forward slash (/) for userid and do not specify a password.

pstdir ORA806 Oracle 8.0 OPTUSER D0806 * rt password

dbalias

DB Alias information. Use dbalias for each DB Alias that the Server can access for Command Line processes. Note that a DB Alias is created from a Windows machine using the Configuration program and the DB Alias information is not verified until a connection is required in a process.

pstdir Name of the Optim Directory that includes the DB Alias. A pstdir entry for the referenced Optim Directory is required.

name Name of the DB Alias.

connectstring

Information needed by the DBMS to connect to the database (typically, the system name and port ID).

(Enter '*' if the database designated by the DB Alias includes the Optim Directory.)

userid password

User ID and password for DBMS logon. (Provide this information if dbaliaslogon is server.)

Specify “?” as the password when a secure password is supplied in a password file. (See “Securing the Configuration Files” on page 353 for more information.) To use OS Authentication for Oracle, specify a forward slash (/) for userid and do not specify a password.

dbalias ORACLE806 ORACLE806 D0806 rt password

loader The location of the DBMS loader for a command line process. You can specify a loader for a specific Optim Directory and DB Alias, or specify a default loader be used for any DB Alias within a DBMS.

pstdir The Loader is for a specific DB Alias. Enter the name of the Optim Directory that includes the DB Alias. The Optim Directory must be referenced in a pstdir entry. A pstdir entry requires a dbalias entry.

dbalias The Loader is for a specific DB Alias. Enter the name of the DB Alias. The DB Alias must be referenced in a dbalias entry. A dbalias entry requires a pstdir entry.

*** The Loader is the default for a DBMS. You must also provide a value for *dbmstype*.

dbmstype

DBMS type. Enter Oracle, Sybase, Informix or Teradata.

pathloader

Path to the executable loader file.

teradatatype { 1 | 0 }

For the Teradata loader, the load type. Specify 1 for Teradata FastLoad or 0 for Teradata MultiLoad.

teradataconfig

For the Teradata loader, use this keyword to specify Teradata configuration parameters.

Teradata parameters can be specified for a particular Optim directory and DB Alias. For example:

teradataconfig pstdir dbalias tdatasvr userid password rowcntgle n

You can specify Teradata configuration parameters to be used for any DB Alias in a DBMS. For example:

teradataconfig * tdatasvr userid password rowcntgle n

* The Teradata loader is the default for the Optim directory and DB Alias referenced in the loader keyword.

pstdir Name of the Optim directory.

dbalias DB Alias for the Optim directory.

tdatasvr
Name of the Teradata server.

userid User ID for the Teradata server.

password
Password for the Teradata server.

rowcntgle n
Row count to determine whether Teradata FastLoad or MultiLoad is used. Allowable values are 0 to 999,999,999. If you specify 0 or do not specify a value, MultiLoad is used. For any other value, FastLoad is used if the row count of the load file is greater than the value you specify for rowcntgle.

excpnttblcid
Default CID for creating an exception table.

loader * Oracle /opt/oracle/816/bin/sqlldr
loader OPTDIR DBALIAS /opt/oracle/816/bin/sqlldr

auditfacility

Enable or disable the Audit Facility for all Optim Directories. This overrides any specification for individual Optim directories.

true Enable the Audit Facility.

false Disable the Audit Facility. This is the default.

auditfacility true

Audit OptimDirName1

Enables or disables the Optim Audit Facility for the directory specified as *OptimDirName1*.

enabled
Enable auditing for this directory.

disabled
Disable auditing for this directory. This is the default.

retention-days

Number of days for audit records to be retained.

n Value in the range 1 to 999,999,999,999. The default value is 2,555 days (7 years).

Audit RecordLimit

Sets the maximum for number of audit records maintained at any time.

n Value in the range 100 to 999,999,999,999. The default value is 100,000.

<FailureAction>

Action to be performed when the **Audit RecordLimit** is exceeded.

continue
Optim will continue to generate audit records. This is the default.

stop Optim will not generate audit records for processes.

allowlocktbls

Allow users to lock tables.

0 Do not allow users to lock tables.

1 Allow users to lock tables. (Default)

`allowlocktbls 1`

codepage

Code page for System 390 access.

codepgenum

Valid code page settings are 37, 273, 277, 278, 280, 284, 285, 297, 500, and 871.

db2default

The DB2 default setting. (Default)

`codepage 871`

cmmaxshuffleretries

Default number of times the Column Map Shuffle Function will refetch a replacement value until a value that does not match the source row is found (a “retry”). The Shuffle Function retry parameter overrides this default.

Using a high retry value with columns that contain many duplicate values will increase the processing time. For these columns, it may be best to use a retry value of zero.

n Enter a value from 0-1000. Enter 0 to allow a replacement value to match the source. The default is 10.

`cmmaxshuffleretries 10`

dbconnections

Number of database connections for Archive, Delete, or Extract Processing. Multiple database connections allow processing of multiple rows concurrently to improve performance when processing large quantities of data. Valid entries are:

0 Use one database connection for processing. (Default)

1 *n* Use the specified number (from 2 to 32) of database connections.

1 maximum

Use the maximum number of connections supported by the Server.

`dbconnections 1 maximum`

formatnumerics

Format of numeric values displayed in process reports.

0 Do not format numbers in process reports (i.e., display as *nnnnnn*). (Default)

1 Format numbers in process reports (i.e., display as *nnn,nnn*).

`formatnumerics 0`

maxcommitfreq

System-wide commit frequency.

n A number from 1 to 999,999.

200 Default setting.

`maxcommitfreq 200`

maxextractrows

Maximum number of rows to extract.

n A number from 1 to 999,999,999.

100000 Default setting.

`maxextractrows 100000`

onlyidxsearch

Use of Archive Indexes in Search and Restore processes. Valid entries are:

0 Search Archive indexes first and native file system, if necessary.

1 Search Archive indexes only. (Default)

`onlyidxsearch 1`

orausearraydelete

Use the Oracle array delete feature with a Delete Process. When the feature is used, rows not found are listed as deleted in the Delete Process Report. Valid entries are:

0 Do not use Oracle array delete.

1 Use Oracle array delete. (Default)

`orausearraydelete 1`

reviewdelafterarchive

Allow users to list rows to be deleted after Archive Process.

0 Do not allow users to list rows to be deleted after Archive Process.

1 Allow users to list rows to be deleted after Archive Process. (Default)

`reviewdelafterarchive 1`

reportdir

Directory or location for saved reports.

directory

As you must use a Window workstation to view reports, specify a path accessible from such a workstation.

unixtempdir

The UNIX or Linux temporary directory. (Default)

`reportdir /users/RTuser/DDRIVE/OUTDIR/REPORTS`

reportlevel

Maximum number of reports to retain for each type of process (e.g., Extract Processes, Archive Processes). Valid entry is 0 - 200. A value of 0 (default) disables the report retention feature.

0 Do not retain reports. (Default)

n The number of reports retained for a particular process (up to 200) Once the number of retained reports equals this amount, the oldest report is deleted as the current report is saved.

`reportlevel 0`

centeraallowaltret

Indicator for minimum Centera retention settings.

0 Use the Centera default. Any Storage Profile or centeraretention settings for retention will cause the process to fail.

1 Use centeraretention settings or overriding Storage Profile settings for minimum Centera retention. (Default) If centeraavail is 0, the Archive Process will fail.

`centeraallowaltret 1`

centeraavail

Indicator for the use of a Centera device.

0 Centera device is not used. (Default)

- 1** Centera device is available for use. This setting is required in order to copy an Archive File to a Centera device or process such a file.

`centeraavail 0`

centeraretention

Default minimum retention setting for Archive Files copied to Centera.

none No minimum retention period. (Default)

default

The Centera default applies.

interval

Use any `centeradays` and `centerayears` settings or overriding Storage Profile settings for minimum Centera retention.

infinite

Retain the file on Centera forever; the file cannot be deleted.

`centeraretention none`

centeradays

The number of days to retain an Archive File copied to Centera. This value and the `centerayears` value determine the retention period when the `centeraretention` parameter or overriding Storage Profile setting indicates an interval for Centera File retention.

0 Default. The file can be deleted from Centera at any time.

n Number of days (up to 18300) to retain the file.

`centeradays 250`

centerayears

The number of years to retain an Archive File copied to Centera. This value and the `centeradays` value determine the retention period when the `centeraretention` parameter or overriding Storage Profile setting indicates an interval for Centera File retention.

0 Default. The file can be deleted from Centera at any time.

n Number of years (up to 100) to retain the file.

`centerayears 10`

networkeravail

Indicator for the use of a NetWorker system.

0 NetWorker is not used. (Default)

1 NetWorker is available for use. This setting is required in order to copy an Archive File to NetWorker or to process such a file.

`networkeravail 0`

tivoliavail

Indicator for the use of a Tivoli device.

Note: To use a Tivoli device, you must install the Tivoli client and API support on the machine where the Optim Server runs.

0 Tivoli is not used. (Default)

1 Tivoli is available for use. This setting is required in order to copy an Archive File to Tivoli or to process such a file.

userid password

Tivoli is available for use with the specified User ID and password. This setting is required in order to copy an Archive File to Tivoli or to process such a file.

Note: If this setting is used, pr0svce must be started under root authority. See “Securing the Products” on page 351.

tivoliavail 1

rmfixedsegsz

The default maximum segment size for Archive Files on fixed drive (i.e., hard disk).

0 Fixed drive software determines default segment size. (Default)

n Size in megabytes (up to 9999 MB).

rmfixedsegsz 0

rmremsegsz

The default maximum segment size (in megabytes) for Archive Files on a removable device (e.g., floppy disk, zip drive).

10 Default

n Size in megabytes (up to 9999 MB).

rmremsegsz 10

scriptmaxlines

Maximum number of lines in a Column Map Procedure that are included in the Process Report.

500 Include up to 500 lines. (Default)

n Maximum number of lines to include (up to 9999 lines).

scriptmaxlines 500

scriptprefixout

Option for Column Map Procedure name in Process Report.

0 Do not include name.

1 Include Column Map Procedure name. (Default) If a Local Column Map Procedure is used in process, a name is generated in the form *tablename.columname.n* to be included in the report. Use scriptshowfullcol and scriptshowfulltbl to format the generated name.

scriptprefixout 1

scriptshowfullcol

Format for column name used to generate name for local Column Map Procedure.

0 Use full column name.

1 4 4 Use first 4 characters and last 4 characters in column name. (Default)

1 *ln rn* Use indicated number of characters from beginning (*ln*) and end (*rn*) of column name.

scriptshowfullcol 1 3 3

scriptshowfulltbl

Format for table name used to generate name for local Column Map Procedure.

0 Use full table name.

1 4 4 Use first 4 characters and last 4 characters in table name. (Default)

1 *ln rn* Use indicated number of characters from beginning (*ln*) and end (*rn*) of table name.

scriptshowfulltbl 1 6 6

scriptwarnmissing

Report option for missing Column Map Procedures.

0 Exclude warning of missing Column Map Procedure.

1 Include warning of missing Column Map Procedure. (Default)

scriptwarnmissing 1

wormdeviceallowaltret

Indicator for minimum WORM device retention settings. Indicates whether users can override configuration specifications for a WORM device using a Storage Profile.

0 Use the WORM device default. Any Storage Profile or wormdeviceretention settings for retention will cause the process to fail.

1 Use wormdeviceretention settings or overriding Storage Profile settings for minimum WORM device retention. (Default)

wormdeviceallowaltret 1

wormdeviceretention

Default minimum retention setting for Archive Files copied to a WORM device.

none No minimum retention period. (Default)

interval

Use any wormdevicedays and wormdeviceyears settings or overriding Storage Profile settings for minimum WORM device retention. The retention interval cannot exceed the WORM device maximum date of 01/17/2071.

maximum

The WORM device maximum retention date, 01/17/2071, applies.

wormdeviceretention none

wormdevicedays

The number of days to retain an Archive File copied to a WORM device. This value and the wormdeviceyears value determine the retention period when the wormdeviceretention parameter or overriding Storage Profile setting indicates an interval for WORM device file retention.

0 Default. The file can be deleted from the WORM device at any time.

n Number of days (up to 999) to retain the file.

wormdevicedays 60

wormdeviceyears

The number of years to retain an Archive File copied to a WORM device. This value and the wormdevicedays value determine the retention period when the wormdeviceretention parameter or overriding Storage Profile setting indicates an interval for WORM device file retention.

0 Default. The file can be deleted from the WORM device at any time.

n Number of years to retain the file.

wormdeviceyears 20

sybaseunchain

Optim normally runs in chained mode. However the connection must be in unchained mode to accommodate a Sybase ASE stored procedure that runs in unchained mode, if the stored procedure will be triggered in a command line process to Insert, Restore or Delete Sybase ASE data.

active Processes must run in unchained mode.

inactive

Processes must run in normal (chained) mode. (Default)

defaultactive

The **Run in Unchained Mode** check box in Personal Options is available and selected, by default. Insert, Restore, and Delete Processes run in unchained mode unless the **Run in Unchained Mode** check box in Personal Options is cleared.

defaultinactive

The **Run in Unchained Mode** check box in Personal Options is available and cleared, by

default. Insert, Restore, and Delete Processes run in normal mode unless the **Run in Unchained Mode** check box in Personal Options is selected.

sybaseunchain active

uncommittedread

Option to enable extracting of uncommitted rows from the database during an Archive or Extract Process. You can extract uncommitted rows from specific tables in the Access Definition or all tables. Selecting this option for tables with known performance problems may increase the speed of your Archive or Extract Processes.

active Automatically extract uncommitted rows from each table in the Access Definition during all Archive or Extract Processes.

inactive

Automatically extract only committed rows from each table in the Access Definition during all Archive or Extract Processes. (Default.)

defaultactive

The **Uncommitted Read** option on the Access Definition Editor is available and selected by default. Uncommitted rows are extracted unless this option is cleared.

defaultinactive

The **Uncommitted Read** option on the Access Definition Editor is available and cleared by default. Uncommitted rows are not extracted unless this option is selected.

uncommittedread inactive

RTSETENV Shell Script

This file is the script designed to be included in a user “.profile” or “.login” script to define the operating environment for the Server. The RTSETENV script sets up the Server daemon or command line environment on login. A sample is in the PSTHOME directory.

The UNIX operating environment requires certain environment variables to create default settings, as applicable:

```
PSTHOME=directory
[ PSTINFO=[ directory ] ]
[ ORACLE_HOME=[ directory ] ]
[ TNS_ADMIN=[ directory ] ]
[ RTORACLELIB=[ directory ] ]
[ DB2CODEPAGE=n ]
[ RTDB2PROFILE=[ directory ] ]
[ SYBASE=[ directory ] ]
[ RTSYBASELIB=[ directory ] ]
[ INFORMIXDIR=[ directory ] ]
[ INFORMIXSERVER=server ]
[ INFORMIXSQLHOSTS=[ directory ] ]
```

Environment Variables

PSTHOME

The location of Optim.

PSTHOME=/opt/IBM/Optim

PSTINFO

The location of process information files for Optim (all installations). If this environment variable is not set, it defaults to the following:

PSTINFO=/var/tmp/rt4s

Set this variable if you do not have access to /var/tmp, or if you want to direct process information to another location.

Note: All installations of Optim must point to the same location.

ORACLE_HOME

The location of Oracle.

ORACLE_HOME=/opt/oracle

TNS_ADMIN

The location of file tnsnames.ora.

TNS_ADMIN=/opt/oracle

RTORACLELIB

The location of the Oracle API shared objects.

RTORACLELIB=\${ORACLE_HOME}/lib

DB2CODEPAGE

The code page for DB2.

DB2CODEPAGE=1252

RTDB2PROFILE

The location of the DB2 environment script, db2profile.

RTDB2PROFILE=/opt/db2ad81/sql1lib

SYBASE

The location of Sybase ASE.

SYBASE=/opt/sybase

RTSYBASELIB

The location of the Sybase ASE API shared objects.

SYBASE=/opt/sybase/syb12/OCS-12_0/lib

INFORMIXDIR

The location of Informix.

INFORMIXDIR=/opt/informix

INFORMIXSERVER

The name of the Informix server when the product was configured.

INFORMIXSQLHOSTS

The location of Informix SQLHOSTS.

INFORMIXSQLHOSTS=\${INFORMIXDIR} /sqlhosts

RTSERVER Shell Script

The RTSERVER shell script is located in the /sbin directory that is subordinate to the Optim installation directory. This shell script contains commands that may be useful to manipulate the Server process. Generally, the RTSERVER script does not need modification.

You must change the script, however, if the Server is installed in a directory other than the default directory, /opt/IBM/Optim, or if the Server will be run under a user account other than root. The script contains areas that allow you to modify the following environment variables:

- Set PSTHOME=\${PSTHOME:directory/rt} to define the directory containing the Server.
- Set PSTUSER=\${PSTUSER:user} to identify a user other than root.

Arguments

RTSERVER arguments define the operation to be performed, as follows.

rtserver start

Start the Server in the background. The stdout and stderr produced by the Server are written to a file named pr0svce.out, which can be found in the temp directory that is subordinate to the Optim installation directory.

rtserver stop

Stop a running Server instance. The Server stops after processes are complete.

rtserver kill

Kill a running Server instance. The Server stops abruptly, without regard to running processes.

rtserver update

Reread the Pstserv configuration file after processes have completed. Use this command to make changes to the configuration file without restarting the Server.

rtserver list

List all processes running on the Server. The list includes the PID of the process, the name of the computer delegating the process, the Optim Directory that is active for the process, the type of process (archive, extract, etc.), the name of the process request, the time the process started, and period for which it has been running.

rtserver verify server

Verify settings in the pstserv configuration file, used to configure the system for running the Server.

rtserver verify local

Verify the settings in the pstlocal configuration file, which provides settings for local operation, using the command line.

RT4S Shell Script

The RT4S shell script is used to start or stop the Server from init(1) processing, and should be executed as part of the system boot procedure only. Generally, the RT4S script does not need modification.

You must change the RT4S shell script, however, if the Server is installed in a directory other than the default directory, /opt/IBM/Optim/rt, or if the Server will be run under a user account other than root. The script contains areas that allow you to modify the following environment variables:

- Set PSTHOME=\${PSTHOME: *directory/rt*} to define the directory containing the Server.
- Set PSTUSER=\${PSTUSER: *user*} to identify a user other than root.

Symbolic Links

A symbolic link allows a filename in one directory to point to a file in another directory.

To start up and shut down the Server as part of init processing, you must create symbolic links to the RT4S script in the following directories:

- rc2.d, where 2 is the run level for startup
- rc1.d, where 1 is the run level for shutdown

The location of the rc2.d and rc1.d directories is platform-specific:

- Under Solaris and Linux, the location is /etc.
- Under HP-UX, the location is /sbin.
- Under AIX, the location is /etc/rc.d.

Use the link command to create symbolic links, as follows: `ln -s actualfile linkname`.

actualfile

File to which a symbolic link points.

In this case, specify RT4S.

linkname

Name of a symbolic link used to point to a file.

In this case, point links named S99RT4S and K07RT4S to RT4S.

Solaris or Linux

To start up and shut down the Server during Solaris or Linux init processing, create symbolic links to the RT4S script in directories /etc/rc2.d and /etc/rc1.d.

1. Log in as the root user.
2. From the console, enter the following commands:

```
ln -s /opt/IBM/Optim/rt/sbin/rt4s /etc/rc2.d/S99rt4s
ln -s /opt/IBM/Optim/rt/sbin/rt4s /etc/rc1.d/K07rt4s
```

HP-UX

To start up and shut down the Server during HP-UX init processing, create symbolic links to the RT4S script in directories /sbin/rc2.d and /sbin/rc1.d.

1. Log in as the root user.
2. From the console, enter the following commands:

```
ln -s /opt/IBM/Optim/rt/sbin/rt4s /sbin/rc2.d/S99rt4s
ln -s /opt/IBM/Optim/rt/sbin/rt4s /sbin/rc1.d/K07rt4s
```

AIX

To start up and shut down the Server during AIX init processing, create symbolic links to the RT4S script in directories /etc/rc.d/rc2.d and /etc/rc.d/rc1.d.

1. Log in as the root user.
2. From the console, enter the following commands:

```
ln -s /opt/IBM/Optim/rt/sbin/rt4s /etc/rc.d/rc2.d/S99rt4s
ln -s /opt/IBM/Optim/rt/sbin/rt4s /etc/rc.d/rc1.d/K07rt4s
```

LOCALE.CONF Conversion File

The LOCALE.CONF file provides locale conversion information between platforms. An example of LOCALE.CONF is in the /etc subdirectory to the PSTHOME directory.

Use the area at the end of this file to provide additional locale conversion information between or within platforms. Specify locale conversion information using the following format:

LocaleA *LocaleB*

Maintenance and Performance

The following commands can generally be used to start, stop, and maintain pr0svce, the Server daemon. These commands are unique to the Server under UNIX.

Note: Only one command line argument can be presented at a time. An argument must be preceded by a dash (-) or a slash (/).

pr0svce -h

Display Help.

pr0svce -s [*id1*]

Shut down pr0svce after last client disconnects.

id1 Process ID, User ID, or endpoint to identify pr0svce. Leave blank to shut down daemons started under the logged on account.

pr0svce -u [*id1*]

Reload configuration file for pr0svce.

id1 Process ID, User ID, or endpoint to identify pr0svce. Leave blank to reload for daemons started under the logged on account.

pr0svce -d [*id1*]

Display all instances of pr0svce in the system. This command can be run under root or any user account to determine whether pr0svce is running.

id1 Process ID, User ID, or endpoint to identify pr0svce. Leave blank to display all daemons for all users.

pr0svce -l [*id1*]

List active processes and clients connected to pr0svce. The PID for each client is displayed, and can be referenced in the -c (cancel client) command.

id1 Process ID, User ID, or endpoint to identify pr0svce. Leave blank to list for all daemons for all users.

pr0svce -k [*id1*]

Shut down pr0svce without waiting for clients to disconnect.

Use this command only when the normal shutdown (-s) is inoperative. Open datasets (including the trace file) are truncated to the last written buffer and each client SVER process must be identified and killed individually.

id1 Process ID, User ID, or endpoint to identify pr0svce. Leave blank to shutdown all daemons started under the logged on account.

pr0svce -daemon

Start pr0svce as a foreground process.

To run pr0svce as a background process, use:

```
nohup pr0svce -daemon >outfilename 2>&1 &
```

This command causes any hang-up signals to be ignored, and directs standard output (stdout) and standard error (stderr) streams to *outfilename*, appending stderr to stdout.

pr0svce -c { *clientid* | ALL } | [*id1*]

Cancel client processes.

clientid Specify client name, or client process ID, or the word ALL.

id1 Provide process ID, User ID, or endpoint to identify pr0svce or leave blank to cancel clients for all daemons started under the logged on account.

pr0svce -v *configuration file name*

Validate the contents of a configuration file and exits.

configuration file name

Valid configuration file name. If you do not provide a configuration file name, the normal server is validated.

Temporary Files

You must shut down all Optim processes before deleting certain files in the /tmp directory.

Optim requires that the following files not be deleted while any Optim process (for example, pr0svce, pr0cmnd, etc.) is running:

- Directories with names beginning with "Mw_" or files, whether open or closed, within those directories
- Files, whether open or closed, with names beginning with "Mw"
- Files, whether open or closed, with names beginning with "regss"

Even though some of these files are of type 's,' they may be safely deleted after all Optim processes are shut down. In addition, you must shut down all Optim processes before killing watchdog, mwrpcss, or regss, and before stopping mwadm.

Optim writes log and error files to the /tmp/softech directory during installation. These files may contain diagnostic information should the setup program fail. Once the installation has been deemed successful, the /tmp/softech directory can be safely deleted.

Securing the Products and Configuration Files

This section provides guidelines for obtaining the most protection on UNIX systems when installing and executing Optim. This section also describes the program (pr0pass) used to encrypt passwords for parameters in the configuration files.

Securing the Products

This section describes how to obtain the most protection on UNIX systems when installing and executing Optim.

Installation

UNIX allows you to restrict read, write, or execute permission to a user, members of a group, or members of any other group. Thus, to “fence” Optim, an administrator might:

- Create a group for user accounts with permission to execute Optim.
- Within that group, create a user account to be the designated “owner” of Optim, with full access rights.
- Install Optim while logged on as the owner and create the installation directory as a subdirectory of the home directory.

Under this scenario, typical system defaults for the file creation mask allow only the owner to write to the installation directory, the subdirectories, and files within them, while user accounts within the group can execute Optim and can write to the temp and data subdirectories that hold data from processing. Creating the installation directory in the home directory prevents users outside the group from executing Optim.

An alternative method to prevent users outside the group from executing the software is to change permissions by using the chmod command, as follows:

```
chmod o-rwx <install--directory>
```

User Accounts

Before any processing occurs, you should establish all user accounts. If you change user accounts after processes have run, the ability of processes to access files produced in earlier processing may be affected. For example, a Restore Process that uses Centera or NetWorker as the user ID in effect when the file is recalled from a backup device and when the recalled file is deleted from disk after the specified retention period. Use the following information to help determine which user IDs to specify for each parameter.

The user account under which the pr0svce daemon is started (for example, the account that is logged on when pr0svce is started) must have write access to the Optim temporary directory, and read access to pstserv.cfg.

As you establish additional user accounts, keep in mind the following parameter settings in the configuration files, which affect the credentials under which the pr0svce daemon runs, as well as the credentials presented to run a process and to access files during a process.

filelogon

The filelogon parameter indicates the source of the credentials for processes.

Unless you override the normal umask behavior using the filemode configuration parameter, output files (Extract Files, Archive Files, Control Files) inherit the standard file privileges of the processing user account.

Thus, if you use the filelogon client parameter, a process may be unable to access files not created under its own user account and can open files only according to the file permissions, which include access to networked files.

If, however, you use the filelogon local parameter, or the filelogon server *userid password* parameter, any process can access a file created by any other process and any accessed directories must be writable to the processing user account.

Valid settings are:

local The process runs under the user account used to start the pr0svce daemon.

client The process runs under the user account specified on the Personal Options **Server** tab for the initiating Windows client or the overriding server credentials specified in pstlocal.cfg.

server *userid password*

The process runs under the credentials provided with the server parameter.

Note: The client or server settings require root authorization for the user account used to start the pr0svce daemon; a local setting does not.

tivoliavail *userid password*

The tivoliavail parameter provides the credentials for physical access to the Tivoli resources. The filelogon parameter establishes credentials presented for access to the Archive Files managed by Tivoli.

Valid settings are:

1 Present the credentials used to start the pr0svce daemon for physical access to Tivoli resources.

0 Do not use Tivoli resources.

Note: A 1 *userid password* setting requires root authorization for the user account used to start the pr0svce daemon.

webserver

The webserver parameter applies to Optim Amdocs CRM Solution only. For details, see your Tomcat documentation.

Valid settings are:

1 Present the credentials used to start the pr0svce daemon for webserver access to Archive Files.

0 Do not use webserver access.

Note: A 1 *userid password* setting requires root authorization for the user account used to start the pr0svce daemon.

When setting up user accounts and file permissions, note that both pr0svce and the user account running pr0svce must be able to access the file that keeps information about active daemons in order to perform an action against pr0svce (for example, to shut down or delete pr0svce). This file is maintained in the directory designated by the PSTINFO environment variable. (See “RTSETENV Shell Script” on page 346 for more information regarding the PSTINFO environment variable.)

Execution

If the configuration file includes “filelogon local”, tivoliavail, or webserver parameters without explicit credentials, the process assumes the authority of the user account used to start pr0svce. Thus, if you start pr0svce from the root user, the request will run under root credentials. If you start pr0svce under a user account in the group, the request will run under the credentials for the user account.

Generally, you should avoid running `pr0svce` under root authority. However, as noted earlier, you must run the `pr0svce` daemon under root authority when certain parameters in `pstserv.cfg` or `pstlocal.cfg` (the configuration file) are set. The parameters and settings that require root authority are:

- `filelogon client`
- `filelogon server userid password`
- `tivoliavail true userid password`
- `webserver true userid password` (for Optim-AMD users only)

Before running a process for which one or more of these settings apply, `pr0svce` validates the incoming user account and password. The process is then run under the credentials supplied in the configuration file. If `pr0svce` must run a process under root authority, it is advisable to include the “`filelogon server userid password`” (rather than “`filelogon client`” or “`filelogon local`”) and the `limitaccess` parameters in the configuration file to protect your system from processing that, because it uses root credentials, has access to all files on the system.

Securing the Configuration Files

This section describes the program (`pr0pass`) used to encrypt passwords for parameters in the configuration files.

If the administrator has set up file permissions as described in “Securing the Products” on page 351, only the owner, members of the group that includes the owner, and the root user can view (read) the configuration files, and only the owner or the root user can update (write) the configuration files.

The user account used to start `pr0svce` must have read access to the `pstserv.cfg` file, while the Command Line Utility (`pr0cmdn`) must have read access to the `pstlocal.cfg` file. (For details about the configuration files, refer to “Pstserv Configuration File” on page 328 and “Pstlocal Configuration File for the Command Line Utility” on page 336.)

Password File

Parameters in both configuration files may include system user ids (i.e., `filelogon`, `webserver`, `server`, and `tivoliavail`), DBMS logons (i.e., `pstidir` and `dbalias`) with passwords. To secure passwords for configuration parameters, you can use an encrypted password file, separate from the configuration files. The `pr0pass` program maintains the password file, encrypting passwords for parameters in the configuration files.

By default, the password file is installed in the `/etc/pstpass` subdirectory to the `PSTHOME` directory. However, you can override the location and name of the file by providing the full path and file name in `PSTPASS`, an environment variable. (Refer to “RTSETENV Shell Script” on page 346 for a description of the `PSTPASS` environment variable.) Users that can start `pr0svce` or execute `pr0cmdn` or `pr0coms` must have permission to read the password file and users that use `pr0pass` must be able to write to the password file.

Note: Do not move the password file to another system; to do so will corrupt the file.

To use encrypted passwords:

- Execute `pr0pass` from the Command Line to add the passwords. You must be logged on to the Install directory as the owner, as a user within the fenced group, or as the root user.
- Within the configuration files, specify a question mark (?) for the password to retrieve the password from the password file.

Commands

This section describes the commands you can use with a password file.

The following command line actions are available to help you edit an encrypted password file.

pr0pass -l

List the type, name, and user id for passwords in the file.

pr0pass -h**pr0pass -?**

Display the help for the pr0pass program.

pr0pass -a *type name userid password*

Add a password entry. The password is encrypted until passed to the DBMS or system for validation.

type A valid password type:

- filelogon
- webserver
- server
- tivoliavail
- pstidir
- dbalias
- user

Note: "User" is not a parameter in a configuration file; it refers to any system user id. Specify the "user" parameter type for any parameter referring to a system user account.

If type is pstidir, the default "%" indicates any Optim Directory. If type is dbalias, use the form pstidir:dbalias. The default "%" indicates any Optim Directory or DB Alias, as in %:%, pstidir:%, or %:dbalias.

name The name of the configuration file parameter. Names not associated with other types are system; use "%" for the name value to prevent an error.

userid The user id is used to verify that the password matches the parameter name. To protect changes to the password file or the configuration file, the two keywords must match.

password

The password that matches the user id.

Note: If you do not enter a password on the Command Line, pr0pass prompts for one.

pr0pass -d *type name userid*

Delete a password entry.

type A valid password type:

- filelogon
- webserver
- server
- tivoliavail
- pstidir
- dbalias
- user

name The name of the configuration file parameter.

Note: Use the wildcard character "%" as described for adding a password entry.

userid The user ID used to verify that the password matches the parameter name. To protect changes to the password file or the configuration file, the two keywords must match.

Examples

This section includes examples of using the Add command.

The following examples demonstrate using the Add command for the pr0pass program and indicating encrypted passwords in the configuration file.

1. To encode the password for the Optim Directory, PSTDIR1, create a password, as follows:

```
pr0pass -a pstdir pstdir1 myuserid mypassword
```

In the configuration file for PSTDIR1, specify the password as a question mark (?):

```
pstdir pstdir1 Oracle 8.0 schema connectstr * myuserid ?
```

2. To encode the password for the DBALIAS, specify both the Optim Directory to which it belongs and the DB Alias name:

```
pr0pass -a dbalias pstdir1:dbalias1 myuserid mypassword
```

And in the configuration file, specify:

```
dbalias pstdir1 dbalias1 connectstr myuserid ?
```

3. To encode a single password for a specific user account to access any Optim Directory or DB Alias, use a percent sign (%) for the *name*. For example:

```
pr0pass -a pstdir % myuserid mypassword
```

```
pr0pass -a dbalias %: % myuserid mypassword
```

This example would provide a password for the following parameters in the configuration file:

```
pstdir pstdir1 Oracle 8.0 schema connectstr * myuserid ?
```

```
pstdir pstdir2 Oracle 8.0 schema connectstr * myuserid ?
```

```
dbalias pstdir1 dbalias1 connectstr myuserid ?
```

```
dbalias pstdir1 dbalias2 connectstr myuserid ?
```

```
dbalias pstdir2 dbalias3 connectstr myuserid ?
```

But would not provide a password for these parameters in the configuration file:

```
pstdir pstdir3 Oracle 8.0 schema connectstr * otherid ?
```

```
dbalias pstdir1 dbalias3 connectstr * otherid ?
```

Protecting the Password File

This section describes how to protect the password file.

By default, the owner and the root user have write access to the password file and can use the commands, pr0pass -a or pr0pass -d, to update the password file.

To allow other members of the group to update the password file, you must use the chmod command to change permissions to the password file. For example, the following command adds write permission to the group for the pstdir file.

```
chmod g+w <installdir>/etc/pstdir
```

This allows members of the group to maintain passwords for their accounts. However, if members of the group other than the owner have write permission, anyone in the group can delete a password or the password file, at the risk of disabling the product or requiring reentry of all affected passwords.

Protecting the Configuration Files

This section describes how to protect the configuration files.

It is recommended that you allow only the owner or the root user to update the configuration files. Maintenance of the configuration file does not require knowledge of the actual passwords if group members are allowed to update the password file since the character “?” can be specified for the passwords.

Note: Group members who can modify the configuration file would be able to obtain additional privileges to the Optim Directory or DB Alias, or execute client processes under any identifier.

The Optim Exit in UNIX

Optim includes a mechanism that allows you to use a custom exit to apply an additional layer of security to Optim, beyond the extensive security already included in the product, to meet any security requirements mandated by your company or government regulations. This additional security layer is accomplished through a client-supplied exit that identifies who can use Optim and which executables each user can run.

Client-supplied exits are called user-supplied exits in Optim to differentiate them from the default exit supplied with Optim. The Optim default exit allows all requests by all users, within the security limitations defined for each user or user group via the security functionality included in Optim.

The default exit is intended for clients who do not need to use a user-supplied exit, although it may also be used as a temporary solution while you create your own, customized exit. If you use the default exit, Optim user security will function as it did before release 6.5.

If you implement a user-supplied exit, that exit will augment the extensive security functionality already included in Optim.

Note: A user-supplied exit may also be used to perform other functions, such as manage user accounts, monitor user activity, force inactive sessions to timeout, audit product use, and override user authorization credentials.

Regardless of which exit you use (the default exit or your own exit), you must “sign” that exit before you can use Optim. After the exit is signed, Optim will invoke that exit at initialization and call it at various “exit points” in the program to determine whether Optim should continue with what it was about to do. An exit point is a point within a program at which an exit routine can take control to perform some external function. The exit allows you to

- See what is being done by a given user at various points in a program's logic
- Ensure that the user's request meets your company standards
- Change the request, if needed, to pass your company standards or forbid the request altogether.

Optim will call the exit at each exit point to verify that the user's request meets your company standards, such as verifying that the user has permission to run a given executable. The first exit point occurs when the user launches Optim. If you use the exit to provide external security, that exit point determines whether the user has permission to access the product. If the user has the appropriate permissions, the user can continue; if not, Optim will terminate the user's session after displaying an appropriate error message. (See the *Optim Initialization Exit Programmer's Guide* for a complete list of the Optim exit points.)

Beginning with Optim release 6.5, a signed exit must exist to use Optim, whether the exit is the Optim default exit or a user-supplied exit. To sign an exit, you must specify the company credentials supplied to your organization when you received Optim. Your company credentials consist of your Optim-supplied company ID, Name, and Password. The Optim setup process will automatically request these credentials during installation, so you can sign an exit.

Note: If you have write access to the Optim bin directory and you have the appropriate company credentials, you can change from one exit to another at any time following installation by signing a new exit. You can change from using the default exit to a user-supplied exit (or vice versa), or you can change from one user-supplied exit to another. (If you are switching to user-supplied exit, you must compile, link, and copy that exit to the bin directory before you can sign it.)

In a UNIX environment, you can only sign the default exit during installation. If you want to sign a user-supplied exit, you must run an `opmusegn` script file following installation. (Another script file is available to revert to the default exit from a user-supplied exit, if needed.) See “Signing an Exit in UNIX - Red Hat Linux 3 or Solaris 8” on page 357 for more information.

The Optim default exit is delivered unsigned to ensure the following:

- It is signed by a user with the appropriate company credentials
- The person signing the default exit is authorized to make the decision to use that exit, as opposed to a user-supplied exit. This is important because the default exit returns a “continue” code at every exit point. Thus, if the default exit were delivered signed, it would bypass any security checks and additional functionality included in your user-supplied exit (assuming that you already created one).

Writing Your Own Exit

If you want to employ the additional functionality available via a user-supplied exit, you must write your own exit.

To write a user-supplied exit, you must do the following:

1. Determine what you want the exit to do.
2. Determine which Optim *exit points* that call your exit are suitable for what you want to do.
3. Write the appropriate code to respond to those exit points within your user-supplied exit.

After you create an exit, you must compile, link, and copy the exit to the bin directory in which Optim is installed, before you can sign it. The same is true when you modify an exit. If a signed exit does not exist, you cannot use Optim. (See the *Optim Initialization Exit Programmer's Guide* for more information on creating a user-supplied exit.)

Prerequisites to Signing a User-Supplied Exit

If you want to use your own, user-supplied exit, certain requirements apply.

- The exit load linked module name must be appropriate for your platform, as shown below:

Platform	Linked Module File Name
Windows	opmexit.dll
AIX, Solaris, Linux	libopmexit.so
HPUX	libopmexit.sl

- You must copy the exit file to the bin directory before you run the opmusign script in UNIX. (The opmusign script is used to sign a user-specified exit, while the opmdsign script is used to sign the default Optim exit.)
- The exit file must exist in the bin directory and be signed on every Optim installation. Thus, each time you install Optim in a directory, a signed exit must exist in the bin directory. (If you install a new version of Optim over a previous version, you have to recopy your exit into the bin directory and resign it, or sign the default exit.)

Signing Required After Each Install

Unlike the Optim Security feature, which you must initialize once per Optim Directory, you must sign an exit *each time you install* Optim on a machine. Moreover, when you upgrade to a new Optim release, you must sign a valid exit for each Optim installation, before you can use Optim. The same is true if you reinstall Optim.

Anytime you replace a signed exit executable (i.e., opmexit.dll, libopmexit.so, or libopmexit.sl) with another version of that exit, you must sign the updated exit to use Optim. This is true, even if the executable was previously signed (e.g., in another installation or copied from a backup of a signed exit).

Signing an Exit in UNIX - Red Hat Linux 3 or Solaris 8

Unlike in Windows, UNIX does not include a Configuration program to sign an exit. There are, however, three ways to sign the default exit in UNIX, and two ways to sign a user-supplied exit in UNIX.

Default exit in UNIX - Red Hat Linux 3 or Solaris 8

There are three ways to sign the default exit in UNIX.

1. The Optim Setup program, which allows you to sign the default exit as part of the installation process, as described earlier in this appendix. (If you want to sign a user-supplied exit, you must manually run a script file after installation is completed.)
2. The opmdsign script file, located in the rt/sbin directory. You can run this script at any time following installation to switch to the Optim default exit. (The letter “d” in the script name indicates that it is used to sign the default exit.)
3. The pr0sign program.

User-supplied exit in UNIX - Red Hat Linux 3 or Solaris 8

There are two ways to sign a user-supplied exit in UNIX.

1. The opmusign script file, located in the rt/sbin directory. You can run this script at any time following installation to switch to a user-supplied exit. (The letter “u” in the script name indicates that it is used to sign a user-specified exit.)
2. The pr0sign program.

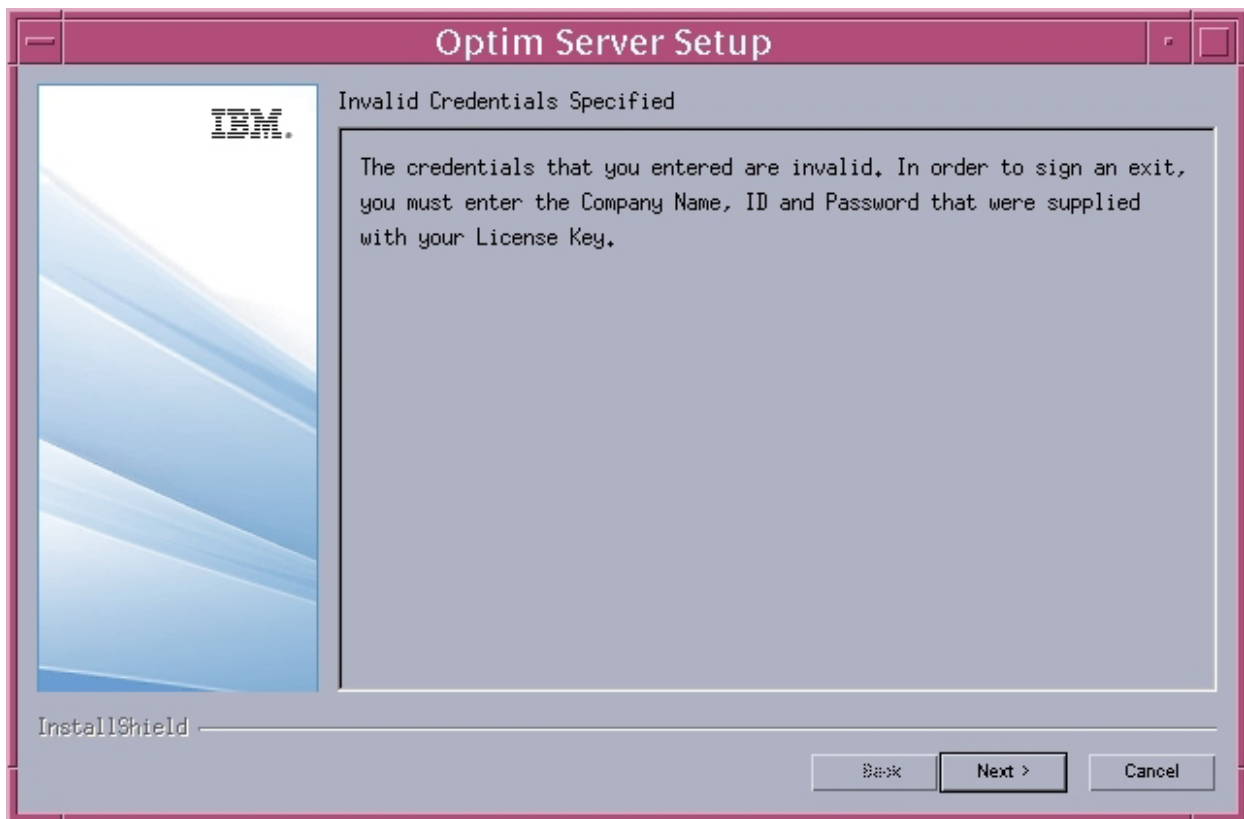
As indicated above, you can use the pr0sign program to sign either the default exit or a user-supplied exit. Before you run the pr0sign program, however, you must ensure that the environment is set up. The opmdsign and opmusign scripts will both set up the environment and call pr0sign.

You must sign an exit for each installation of Optim on a UNIX server. If you copy a signed exit from one installation to another, you must sign the exit again at the target installation.

The Invalid Credentials Specified Dialog - Red Hat Linux 3 or Solaris 8

After you sign an exit, if any of the company credentials you specified are incorrect, an Invalid Credentials Specified dialog will appear. This usually happens if you typed your company credentials in the wrong case (for example, uppercase versus lowercase), or you typed your company Name in a format other than the one specified for your company.

For example, if the “company name” assigned to your organization consists of all lowercase letters (such as “abc company”), you must type your company name in all lowercase letters; otherwise, the Invalid Credentials Specified dialog will appear.

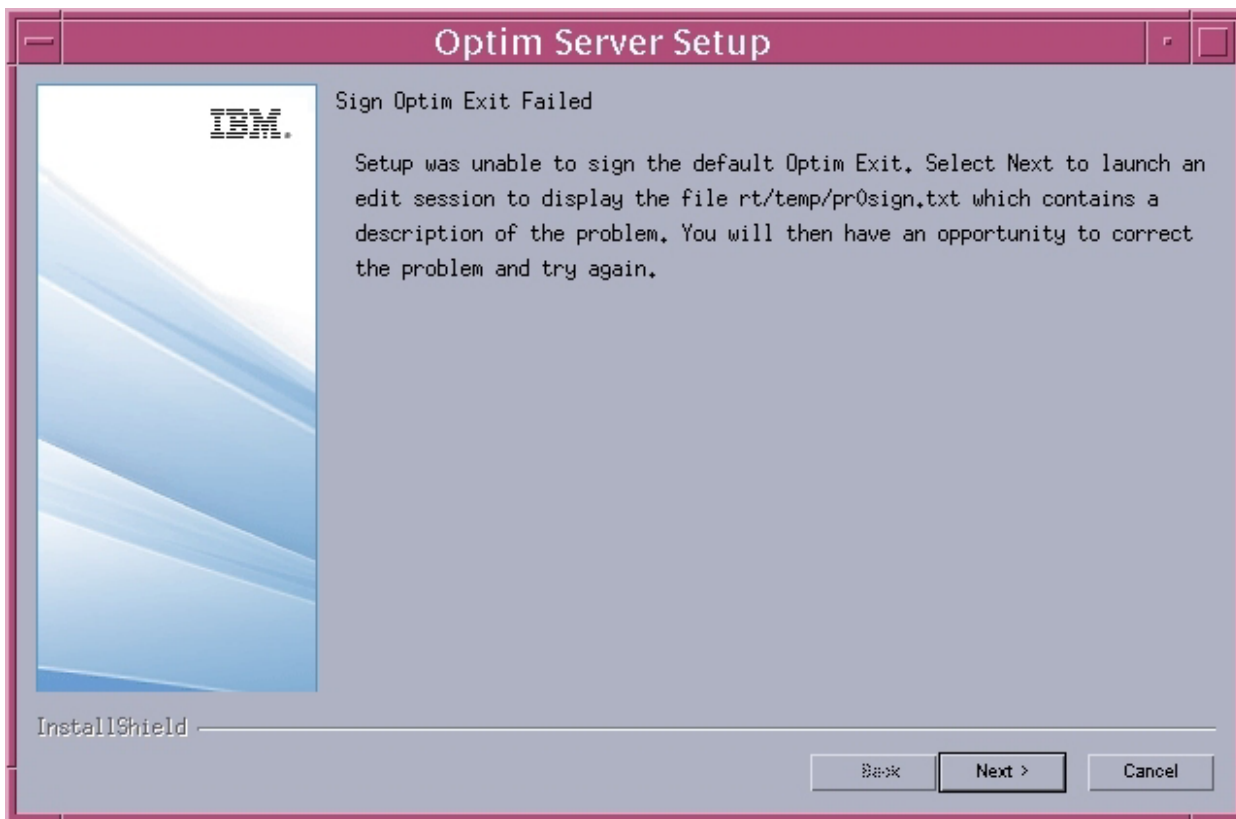


If the Invalid Credentials Specified dialog appears, click **Next** to display the Sign Optim Exit dialog again. Then repeat the signing process by typing your company credential in the correct format. If needed, refer to the company credential you received along with Optim to determine the correct format for this information.

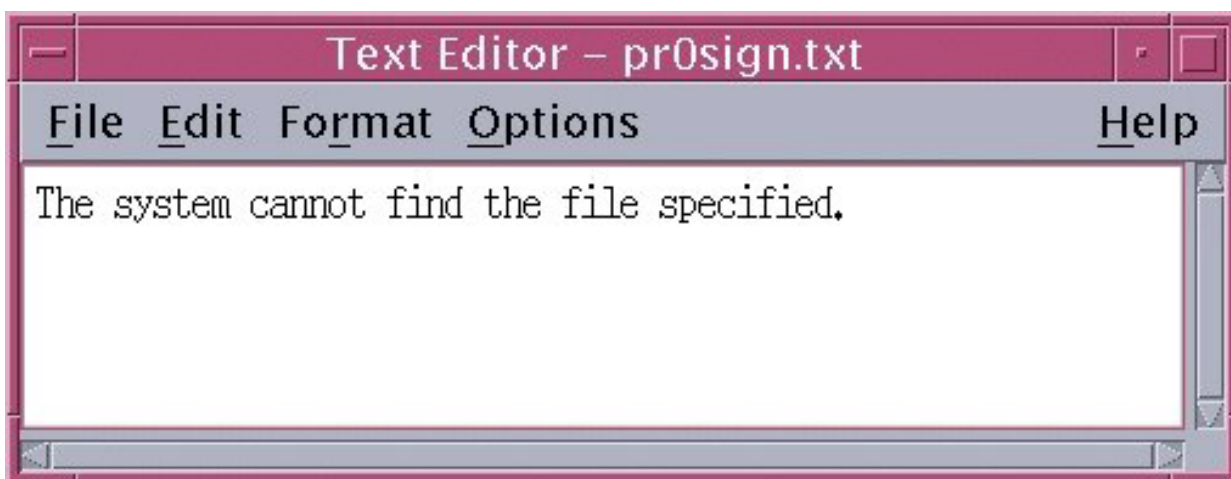
The Sign Optim Exit Failed Dialog - Red Hat Linux 3 or Solaris 8

The Sign Optim Exit Failed dialog notifies you about exit-related errors. For example, if the Optim module used to challenge an exit's signing is corrupted or missing, the Sign Optim Exit Failed dialog will appear.

Note: The Invalid Credentials Specified dialog displays errors pertaining to the company credentials specified during the signing of an exit.



It is important to understand that this dialog only notifies you that there was an unspecified error in the signing process. Detailed information about the actual error will appear in a separate, text editor window after you click **Next**. Optim will extract the appropriate error information from a pr0sign.txt file, as shown in the following example.



In the above example, the signing process failed because the module used to challenge the signing is missing. (The information displayed in the text editor is stored for future reference in the pr0sign.txt file in the rt/temp directory.)

Optim will display the Sign Optim Exit dialog, along with the text editor window, so you can do one of the following:

- If you can resolve error, you can sign the exit.

- If you cannot resolve the error, select **No** in response to the question “Do you want to sign the default Optim Exit,” and then click **Next**. After Optim is installed, you can fix the problem that caused the error, and then sign the exit you want to use by running either:
 - the `opmdsign` script file to sign the default exit, or
 - the `opmusign` script to sign a user-supplied exit of your own creation.

Signing the Default Exit after an Installation

After Optim is installed, there are two options available in UNIX to sign the default exit (if you did not sign that exit during setup).

- Run the script file `opmdsign`, located in the `rt/sbin` directory. (The letter ‘d’ in the script’s name indicates that it is used to sign the default exit.)
- Run Setup again, but do not select any components for installation.

Run the `opmdsign` Script

This section describes how to run the `opmdsign` script.

As part of setup, Optim places the script file, `opmdsign`, in the `rt/sbin` directory. When you use Setup to sign the default exit, it launches this script file to set up the environment and calls `pr0sign`.

You may also run the `opmdsign` script file at any time following setup to sign the default exit. Before you do that, however, make sure that no Optim processes are running.

The syntax for `opmdsign` is as follows:

```
opmdsign  install_directory/rt  [Company Id]  [Name  [Password] ]
```

install_directory/rt

The `rt` subdirectory appended to your installation directory

Company Id

The six-digit ID assigned to your company

Name The Name assigned to your company

Password

The Password assigned to your company

- These parameters are positional, so you must enter them in the order shown above.
- The installation directory parameter (*install_directory/rt*) is required; the remaining parameters (*Company Id*, *Name*, and *Password*) are optional.
- If you specify a *Name*, you also must specify the company ID.
- If the company *Name* contains spaces, type the name in double quotation marks, such as “Sample Company”.
- If you specify a *Password*, you also must specify the company ID and *Name*.

The following examples show three different ways of using the `opmdsign` script to sign the default exit, following Optim installation. In all three examples, the path for the Optim installation directory is `/users/roberts/rtinstalled`.

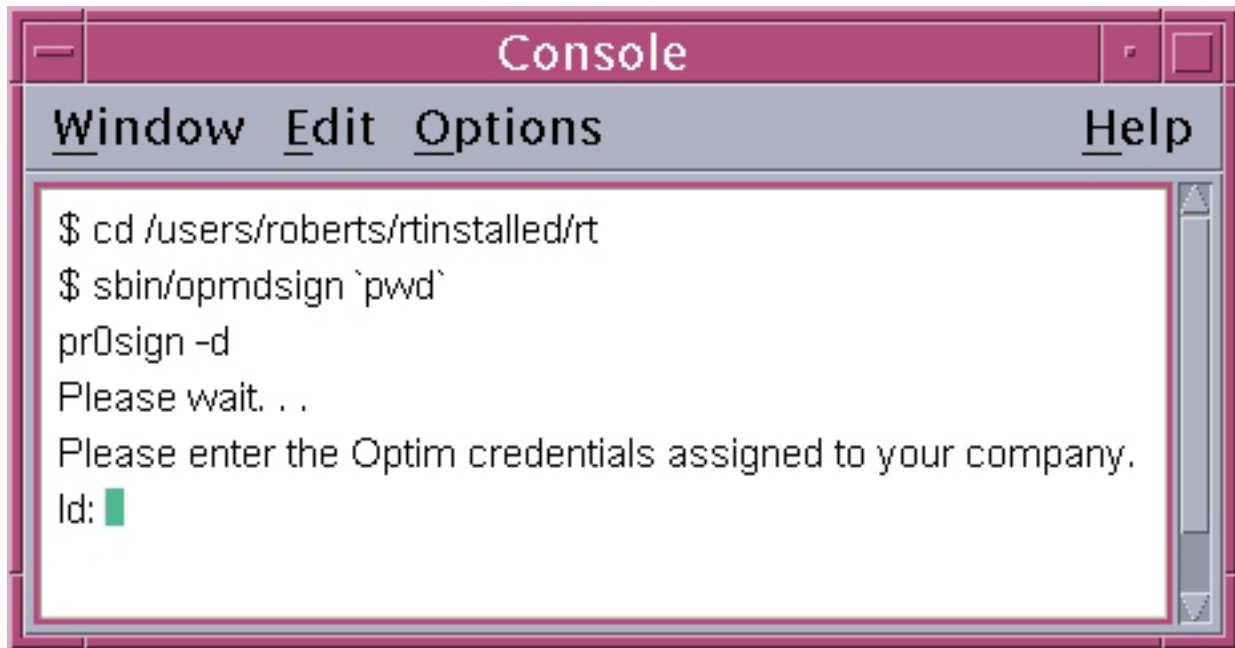
`opmdsign` Signing Example # 1

This section includes an example of signing the default exit.

Use the following procedure to sign the default exit after installation.

1. Shut down the Optim Server if it is running.
2. Change to the `/users/roberts/rtinstalled/rt` directory. Notice the “`rt`” subdirectory appended to the installation directory; this is required.

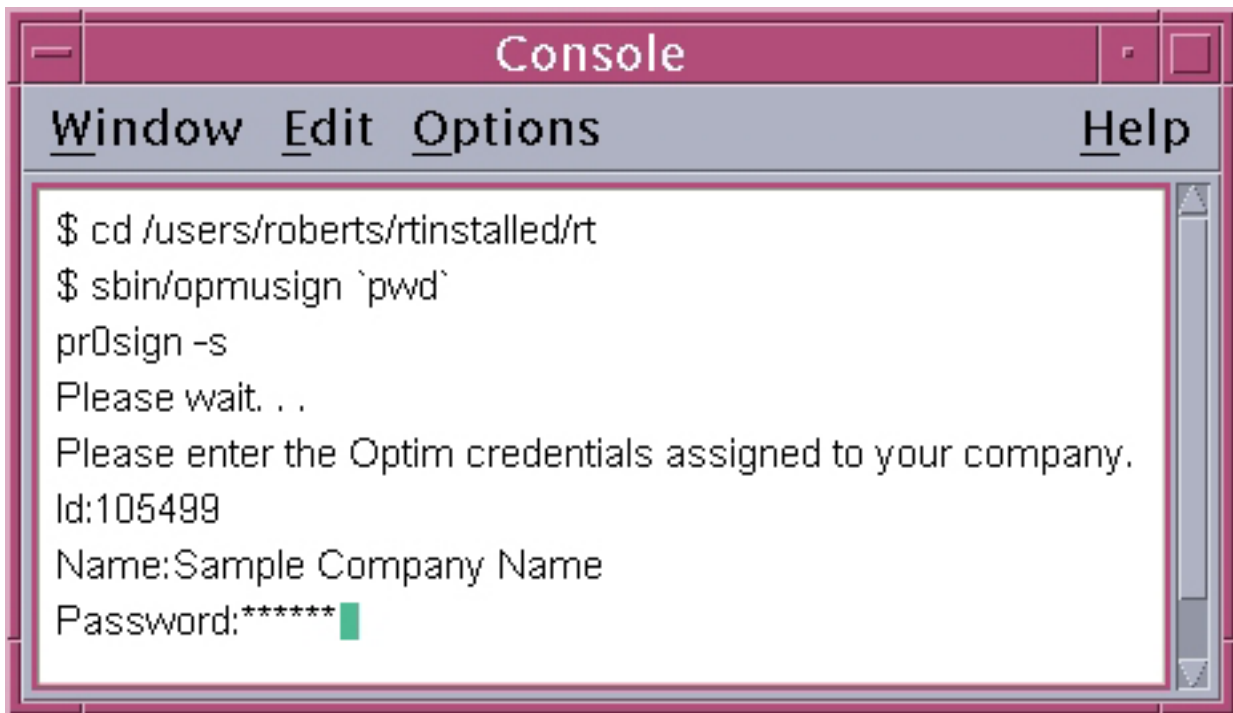
3. Run the `opmdsign` script in the `rt/sbin` subdirectory and specify the present working directory. In the following example, the user specified the system variable ``pwd`` to indicate that `/users/roberts/rtinstalled/rt` is the present working directory. (The ``pwd`` variable has the same effect as specifying the directory's full path.)



```
Console
Window Edit Options Help
$ cd /users/roberts/rtinstalled/rt
$ sbin/opmdsign `pwd`
pr0sign -d
Please wait. . .
Please enter the Optim credentials assigned to your company.
Id: █
```

Note: In the above example, the "pr0sign -d" parameter shown on the third line was generated by the signing script to indicate the default script is being signed.

4. Type your company credentials when prompted for that information. Your company credentials consist of the company ID, Name, and Password assigned to your organization when you received Optim. All three entries are case-sensitive, and you must enter them in the format provided to you. Press Enter after each prompt to display the next prompt. After you specify your company ID, for example, press Enter to display the Name prompt.

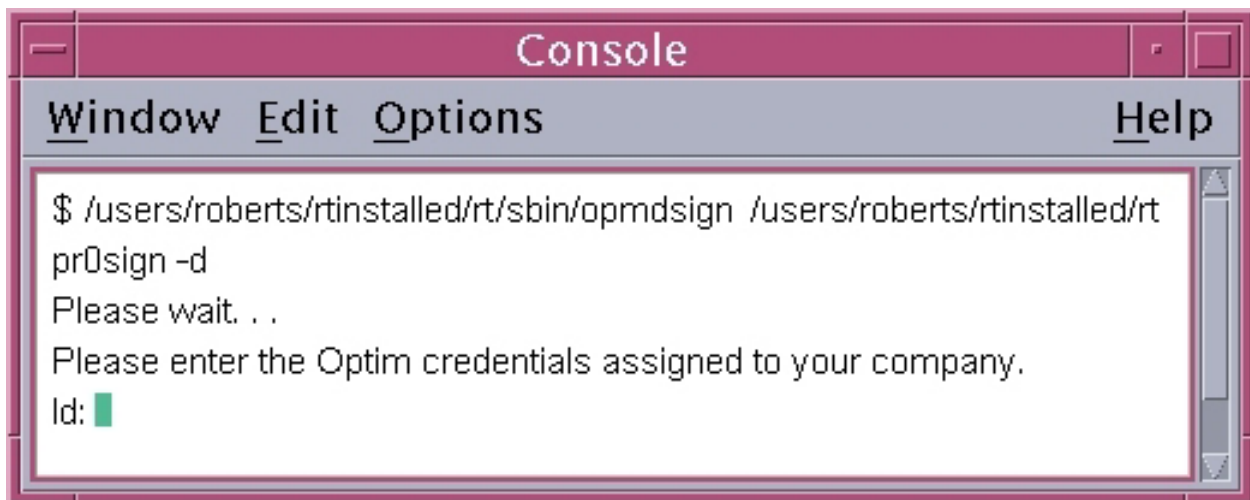


```
Console
Window Edit Options Help
$ cd /users/roberts/rtinstalled/rt
$ sbin/opmsign `pwd`
pr0sign -s
Please wait. . .
Please enter the Optim credentials assigned to your company.
Id:105499
Name:Sample Company Name
Password:*****
```

Note: The Name assigned to your company may not match the spelling or punctuation used in your company's actual name.

opmdsign Signing Example # 2

As in Example # 1, shut down the Optim Server if it is running, and then specify the directories explicitly, as indicated on the first line of the following example.

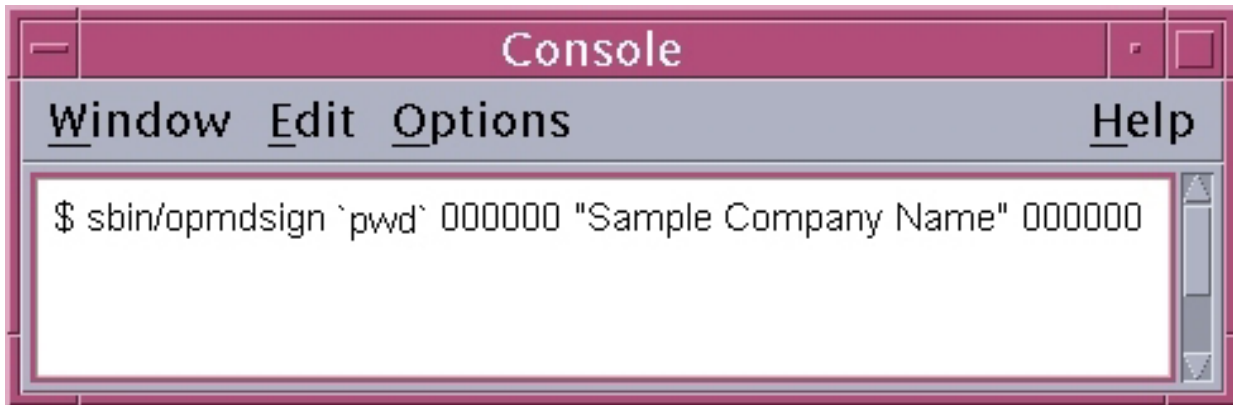


```
Console
Window Edit Options Help
$ /users/roberts/rtinstalled/rt/sbin/opmdsign /users/roberts/rtinstalled/rt
pr0sign -d
Please wait. . .
Please enter the Optim credentials assigned to your company.
Id:
```

opmdsign Signing Example # 3

This section includes another example of signing the default exit.

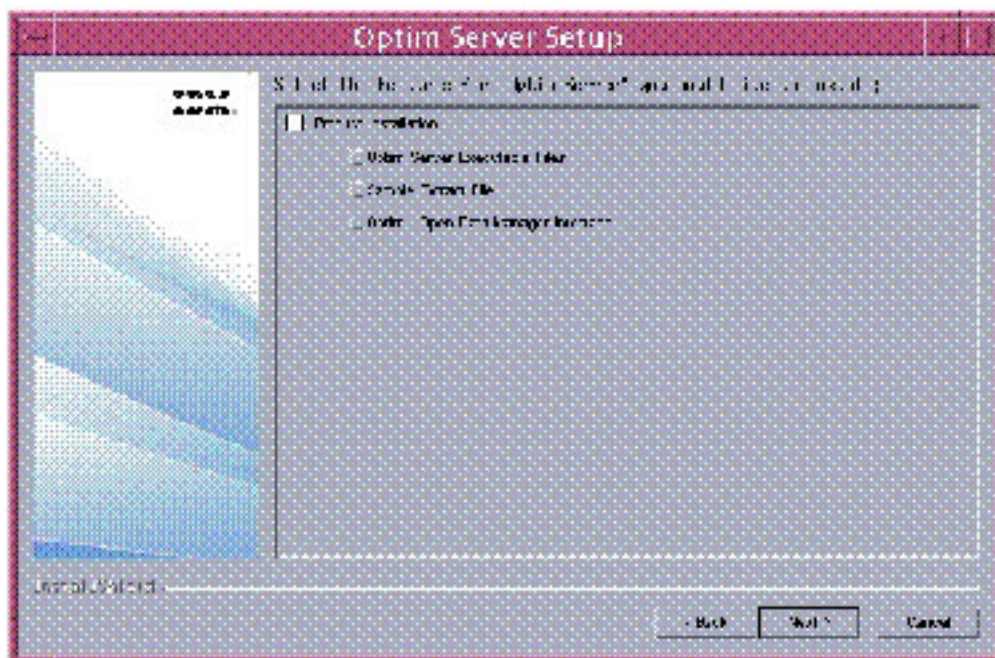
Do steps 1 and 2 in Example # 1 (that is., shut down the Optim Server if it is running and then change to the /users/roberts/rtinstalled/rt directory). Then run the opmdsign script in the rt/sbin subdirectory, but specify all of the parameters explicitly, enclosing the company name in double quotation marks, as shown below.



Run Setup Again - Red Hat Linux 3 or Solaris 8

This section describes how to run Setup again.

If you have the installation DVD or image available, run Setup again. When the following dialog appears, clear the check boxes for all listed components, as indicated below, to skip the install step and proceed to the Sign Optim Exit dialog.



Signing a User-Supplied Exit in UNIX - Red Hat Linux 3 or Solaris 8

This section describes how to sign a user-supplied exit in UNIX.

If your company requires the additional functionality available via a user-supplied exit, you can create your own exit, and then sign that exit as your Optim exit. (See the *Optim Initialization Exit Programmer's Guide* for detailed information about how to write an exit.)

User-Supplied Exit Prerequisites

This section describes the user-supplied exit prerequisites.

Before you can sign a user-supplied exit, you must do the following:

1. Compile your user-supplied exit and create a load library named libopmexit.so (in AIX, Solaris, and Linux) or liboptmexit.sl (in HP-UX).
2. Make sure that the OptimServer is not running; if it is, shut it down.
3. Copy the file libopmexit.so or libopmexit.sl to the rt/bin directory, thereby overwriting the existing file, assuming one already exists.

Run the opmusign Script

This section describes how to run the opmusign script.

As part of setup, Optim places the script file, opmusign, in the rt/sbin directory. You can run the opmusign script at any time following setup to sign a user-supplied exit. (The letter “u” in the script name indicates it is used to sign a *user-specified* exit.)

The syntax for opmusign is as follows:

```
opmusign install_directory/rt [Company Id] [Name [Password] ]
```

install_directory/rt

The rt subdirectory appended to your installation directory

Company Id

The six-digit ID assigned to your company

Name The Name assigned to your company

Password

The Password assigned to your company

- These parameters are positional, so you must enter them in the order shown above.
- The installation directory parameter (install_directory/rt) is required; the remaining parameters (ID, Name, and Password) are optional.
- If you specify a Name, you also must specify the company ID.
- If the company Name contains spaces, type the name in double quotation marks, such as “Sample Company”.
- If you specify a Password, you also must specify the company ID and Name.

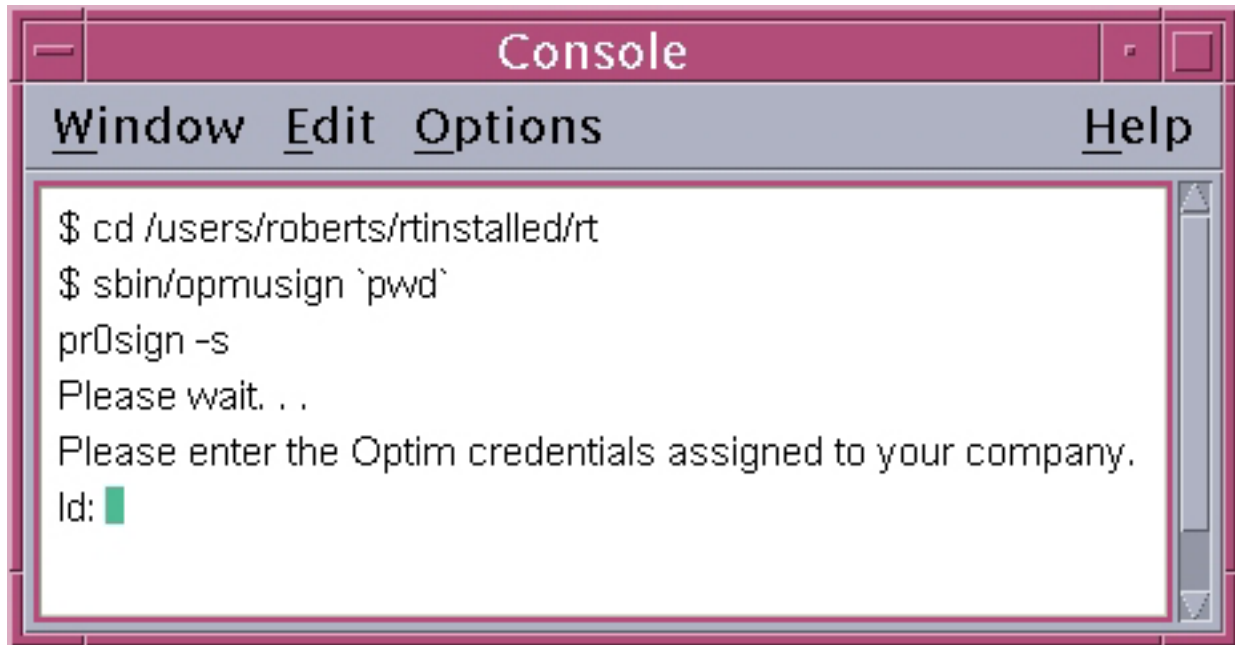
The following examples show three different ways of using the opmusign script to sign a user-supplied exit, following Optim installation. In all three examples, the path for the Optim installation directory is /users/roberts/rtinstalled.

opmusign Signing Example # 1

This section includes an example of signing a user-supplied exit.

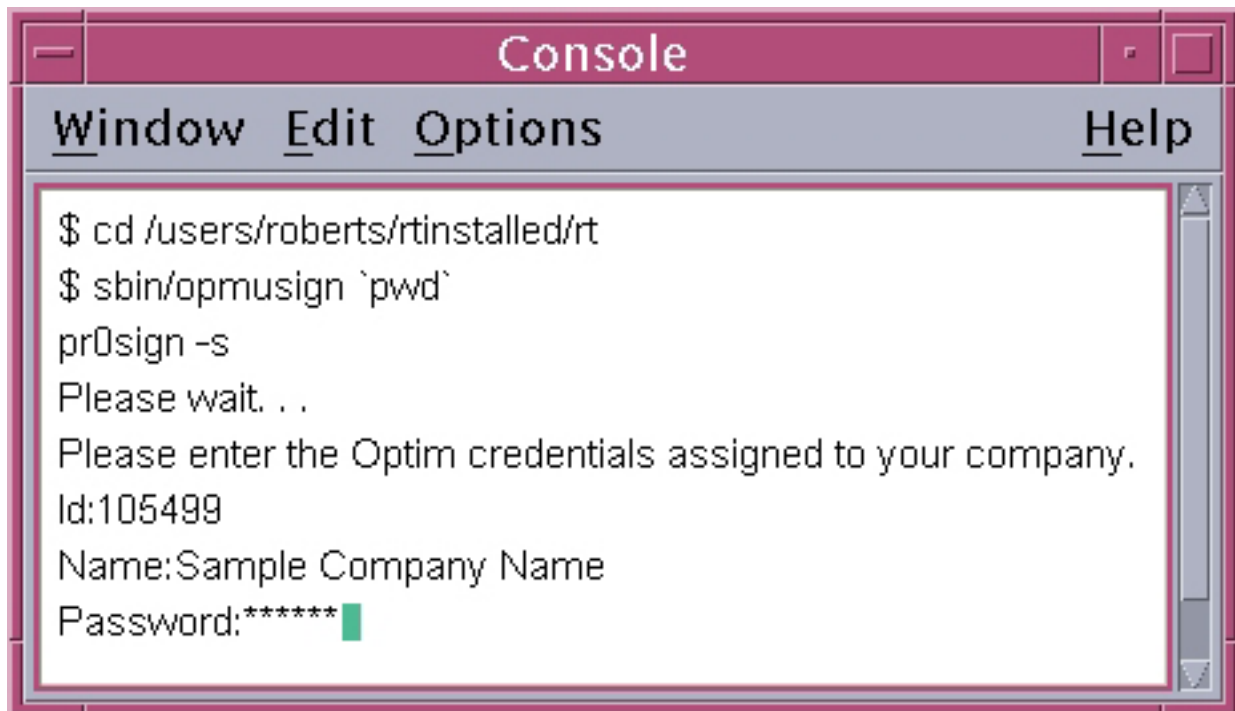
Do the following to sign your user-supplied exit after installation:

1. Shut down the Optim Server if it is running.
2. Change to the /users/roberts/rtinstalled/rt directory. Notice the “rt” subdirectory appended to the installation directory; this is required.
3. Run the opmusign script in the rt/sbin subdirectory and specify the present working directory. In the following example, the user specified the system variable `pwd` to indicate that /users/roberts/rtinstalled/rt is the present working directory. (The `pwd` variable has the same effect as specifying the directory's full path.)



Note: In the above example, the “pr0sign -s” parameter shown on the third line was generated by the signing script to indicate a *user-supplied* script is being signed.

4. Type your company credentials when prompted for that information. Your company credentials consist of the company ID, Name, and Password assigned to your organization when you received Optm. All three entries are case-sensitive, and you must enter them in the format provided to you. Press **Enter** after each prompt to display the next prompt. After you specify your company Id, for example, press **Enter** to display the Name prompt.

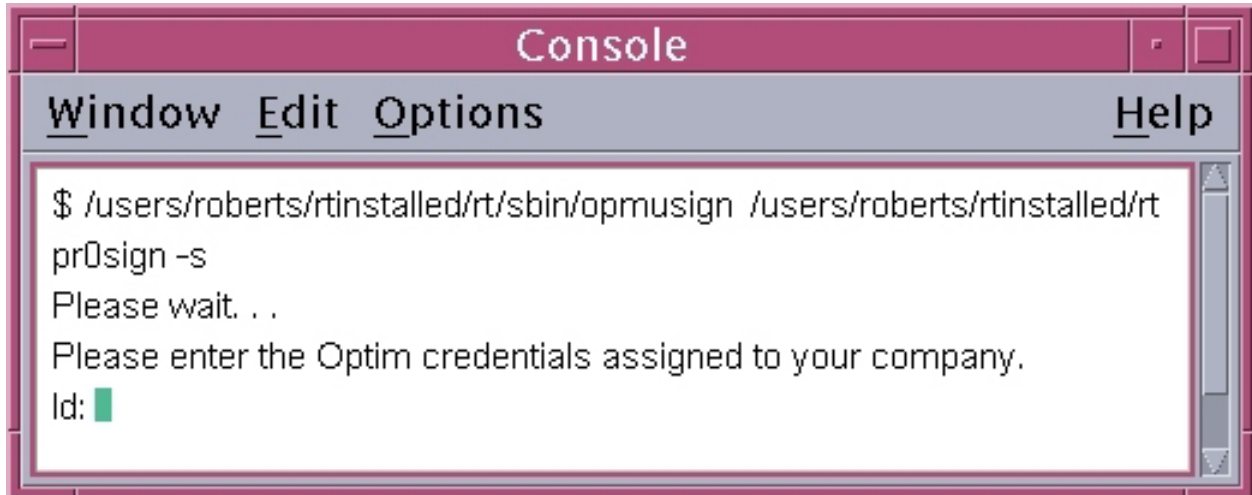


The Name assigned to your company may not match the spelling or punctuation used in your company's actual name.

opmusign Signing Example # 2

This section includes another example of signing a user-supplied exit.

As in Example # 1, shut down the Optim Server if it is running, and then specify the directories explicitly, as indicated on the first line of the following example.

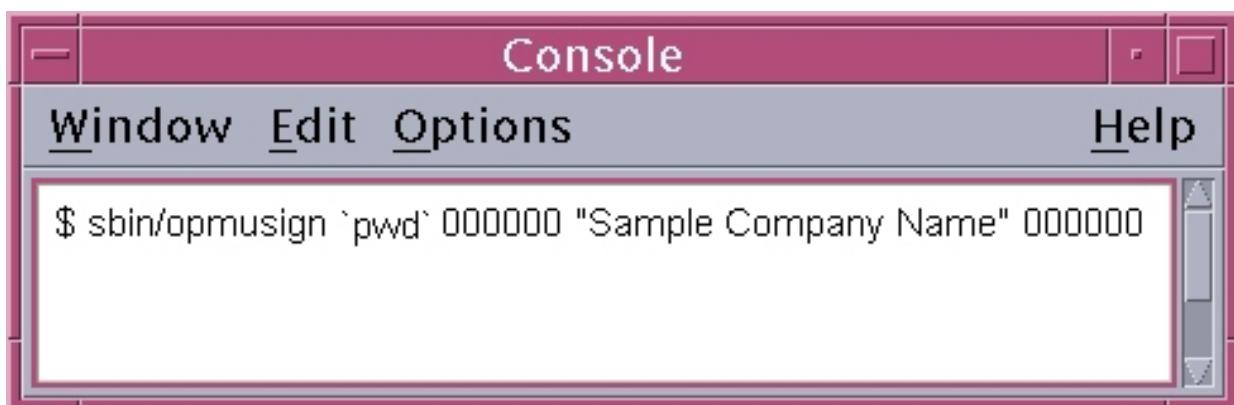


```
Console
Window Edit Options Help
$ /users/roberts/rtinstalled/rt/sbin/opmusign /users/roberts/rtinstalled/rt
pr0sign -s
Please wait. . .
Please enter the Optim credentials assigned to your company.
Id: █
```

opmusign Signing Example # 3

This section includes another example of signing a user-supplied exit.

Do steps 1 and 2 in Example # 1 (that is, shut down the Optim Server if it is running and then change to the /users/roberts/rtinstalled/rt directory). Then run the opmusign script in the rt/sbin subdirectory, but specify all of the parameters explicitly, enclosing the company name in double quotation marks, as shown below.



```
Console
Window Edit Options Help
$ sbin/opmusign `pwd` 000000 "Sample Company Name" 000000
```

Appendix B. Server Credentials

This section provides information about credentials used with the Optim Server (Server) feature of Optim. The Server can be installed and run on a machine using supported versions of Windows, Solaris, HP-UX, AIX, or Linux; therefore, this appendix addresses credentials for all supported platforms.

Credentials uniquely identify a user, and include:

- User ID
- Password
- Domain (for Windows only)

The following types of credentials are used with the Server:

- Credentials needed to run the Server and to start Optim processes.
- Credentials needed by the DBMS to access the Optim Directory and use the DB Alias.

Server Credentials

Credentials required by the Server include a User ID, Password, and Domain (for Windows only).

You must provide Server credentials for the following users:

- The user account under which the Server runs.
- The user account under which Optim processes run.

At installation, the default is to run the Server under the Local System Account and Optim processes under the credentials from the initiating workstation. The Local System Account is a special account for Services only that has full access to the local machine. However, the Local System Account cannot access mapped network drives.

You can provide other Server credentials on the **Startup** tab and the **Security** tab of the Optim Server Settings applet, and the **Server** tab of Personal Options. For UNIX or Linux, you can specify Server credentials using the filelogon parameter of the pstserv configuration file (pstsrv.cfg) and the server parameter of the pstlocal configuration file (pstlocal.cfg).

Note: For information about the Optim Server Settings applet, see Chapter 6, “Configure the Optim Server,” on page 143; for details about Personal Options, see “Server Tab” on page 269 ; and for information about UNIX and Linux configuration files, see “Configuration” on page 327.

Credentials to Run the Server

Credentials to run the Server are determined in Windows by the **Startup** tab of the Optim Server Settings applet. If not using the Local System account, you provide the credentials in **User ID**, **Password**, and **Domain**. In UNIX or Linux, the credentials are determined by the User ID under which the Server (pr0svce) daemon is executed.

After startup, the User ID for the Server may require other privileges, depending on whether you are using explicit credentials or client credentials.

For Windows, credentials on the **Startup** tab of the Optim Server Settings applet are added to the Service Control Manager database. At a minimum, the user account must have the authority to log on to the local computer as a service. You can use the Local Security Policy to grant this authority or you can use the built-in Local System Account, which has full authority on the local computer.

For UNIX or Linux, the user account under which the Server daemon is started dictates the privileges for the daemon. If the daemon is started as part of INIT processing, you must log on with the proper User ID before starting the daemon, or use the SU (substitute user) command.

Credentials to Run Optim Processes

Every Optim process initiated by a client, whether online (from a Request Editor) or from the Command Line Interface or the ODBC Interface, is run in its own process under the Server. This allows you to start individual processes under explicit user credentials and run multiple processes simultaneously without interfering with each other.

You can choose the credentials used to start these processes.

- Run the process under the user account that was used to start the Server.
- Run the process under an explicitly designated user account, regardless of the initiating account (i.e., Request Editor, Command Line Interface, or ODBC Interface).
- Run the process under the initiating user account.

These credentials determine the network access allowed for the process, and, for Oracle OS Authentication or the Informix Loader, the User ID used for DBMS access.

The credentials are verified by the system and must include a valid User ID known to the specified security provider. For Windows, an actual logon for the specified user occurs and the process is started under those credentials, as if the user logged on from the console directly. For UNIX or Linux, the effective User ID and Group ID for the process are changed to the credentials specified for running Optim processes.

Run Under Server Credentials

You can run processes under the authentication provided by the Server credentials. This limits access to the files local to the Server machine or, at least, to the files that are accessible with the Server credentials.

Select **Server** credentials for processes, as follows:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Server** for the **File Input/Output** option and select the **Only files local to this Server may be accessed** check box.

UNIX or Linux

For `pstserv.cfg`, set the `filelogon` parameter to "local."

Note the following when you use the Server credentials to run processes:

- For Windows, a service running under Local System Account cannot be logged on to the network. (See "UNC Network Share Access (Windows)" on page 372 for more information.)
- Oracle OS Authentication will run under the user that started the service (Windows) or daemon (UNIX or Linux). Oracle requires a known User ID (established by an administrator); therefore, you cannot use the Local System Account for Windows. Informix Loader, which uses credentials for the currently logged on user, also requires a known User ID. (For more information, see "Oracle OS Authentication" on page 372.)
- For UNIX or Linux, mount points for networked shares or file access are allowed according to the effective User or Group accounts for the process. Therefore, all processes can use files available to the User account under which the Server daemon is started. (For more information, see "UNIX or Linux File Access" on page 373.)

Run Under Explicit Credentials

You can run processes under an explicit user account to control network access and DBMS logons that use the account for the process (for Oracle OS Authentication and Informix Loader).

You can use the Server to access Optim Directories, DB Aliases, and network shares that individual clients cannot access, and simply restrict the users that can log on to the Server machine. You must require that the credentials in the Optim Server Settings applet (Windows) or pstserv.cfg (UNIX or Linux) be used instead of credentials from the initiating clients, as follows:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Server** for the **File Input/Output** option, clear the **Only files local to this Server may be accessed** check box, and provide explicit credentials in **User ID**, **Password**, and **Domain**.

UNIX or Linux

For pstserv.cfg, set the filelogon parameter to “server” and provide an explicit User ID and password.

Note: The Server credentials must have specific rights, as specified in “Server Privileges for Explicit or Client Credentials.”

Run Under Client Credentials

You can run processes under the credentials from the workstation used to initiate the process. The process is run with the same rights as if it were run on the initiating machine as a LOCAL request.

Require the use of initiating credentials on the Server as follows:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Client** for the **File Input/Output** option.

UNIX or Linux

For pstserv.cfg, set the filelogon parameter to “client.”

Also, on each initiating machine, you must provide the credentials for the Server.

Windows

On the **Server** tab in Personal Options, enter the credentials for all (Default) or individual Servers.

UNIX or Linux

In pstlocal.cfg, specify the credentials on each server parameter.

Note: The Server credentials must have specific rights, as specified in “Server Privileges for Explicit or Client Credentials.”

Server Privileges for Explicit or Client Credentials

Whether using explicit credentials or client credentials, the Server credentials require certain privileges.

For Windows, the Server credentials must allow logon as a user and the creation of a process request as that user. To establish these permissions, you must access the Local Security Policy and grant the following privileges to the user.

- Act as part of the operating system (SeTcbPrivilege)
- Increase quotas (SeIncreaseQuotaPrivilege)
- Replace a process level token (SeAssignPrimaryTokenPrivilege)
- Bypass traverse checking (SeChangeNotifyPrivilege)

Note: These privileges are automatically granted to the Local System Account.

Also, the overriding User ID (specified on the **Security** tab of the Optim Server Settings applet) and the client credentials must have the following privilege. (Note that, in some installations, you can give this privilege to everyone in the Local Security Policy, instead of specifying credentials for each client user.)

- Log on as a batch job (SE_BATCH_LOGON_NAME)

For UNIX or Linux, “Super-User” Server credentials are required to change the effective User ID and Group ID. During startup, if the filelogon parameter is set to “client” or “server,” the effective User ID that started the daemon must be a “Super-User” (zero).

UNC Network Share Access (Windows)

Mapped drives cannot be used for file names when processes are run from the Server, because the drive is mapped only when the user is logged on to the interactive desktop.

Mapping is removed when the user logs off or disconnects from the share. Thus, a file that is valid when the request is created may be invalid at run time.

To specify network files, use a Universal Naming Convention (UNC), in the following format:

`\\servername\sharename`

Each file server must specify the User IDs and access rights (read, write, execute, and so on) for each of its shares. The User ID that is sent to these file servers is the User ID used to run the process (i.e., using Server credentials, explicit credentials, or client credentials).

The following restrictions apply.

- The share on the file server can specify the User ID from that Domain (or everyone).
- The share on the file server can specify the Server machine name and the User ID (or everyone).
- You cannot specify Local System Account on a file server, since there is no external name associated with this credential. When a connection is made to the file server, the “guest” (or anonymous) account is used; therefore, the network share must specify that the guest account (or everyone) has access to the share.

Registry Access for Process Requests (Windows)

The Server component always uses the Local Machine hive in the registry, which is always available.

The user credentials used to start the process can be the Local System Account, a local user, or a domain user. Only local users (or domain users that have previously logged on to the Server machine) have a current user hive; others use the default user hive, HKEY_USERS\DEFAULT, instead.

When using the default user hive, any changes are only cached in memory for use by the process, and are not recorded to the registry. Also, you cannot make the default user hive your current user hive if you log on to the interactive desktop for the Server.

While this is not a problem for the Server processes, this may be problematic for registry settings needed by the DBMS. For example, Informix requires certain registry settings that are recorded in the current user hive for the user logged on at the time that the Informix utilities are used (SETNET32). To correct this issue, once you set up the options, you can copy them to the default user hive using the REGCOPY utility. You must re-run the REGCOPY utility each time you change the options.

Oracle OS Authentication

If you set up Oracle to allow OS Authentication (which is beyond the scope of this document), Optim must use the current User ID for the process to be used by Oracle. Enter one forward slash (/) for the User ID and leave the Password blank.

UNIX or Linux File Access

The effective User ID and Group ID for a process determine the directories, files, or mount points that can be accessed. By default, the user that creates a file has read and write privileges; any other group or user has read privileges only.

Filemode Parameter

You may want files created by the Server to be available to other users to run the same job and overlay the same file. The filemode parameter in `pstserv.cfg` allows you to grant file access to other users. The filemode parameter changes the default file mode for any file created by the Server and allows you to limit read or write privileges for a user, group, or other.

Daemon Startup Directory

A directory created during the daemon startup tracks the daemon system-wide, so that you can shut the daemon down from a different process. This directory includes a file for each daemon started. (In production environments, there is usually one file.)

The default creates an “rt4s” subdirectory under the system “tmp” directory. However, the daemon is often run under a “fenced” user that does not have privileges in the tmp directory. To overcome this, you can set the PSTINFO environment variable before starting the daemon. Specify the complete path to a directory to which the user starting the daemon can write. In general, you must pre-create the directory to give it specific user rights.

DBMS Logon Credentials

DBMS logon credentials needed to access the Optim Directory and use the DB Alias include a User ID, Password, and Connection String.

If using the Server, you can provide the DBMS logon credentials in two places:

- The **Connections** tab of the Optim Server Settings applet.
- The **Logon** tab of Personal Options.

The location used to maintain DBMS logon credentials depends on the settings on the **Security** tab of the Optim Server Settings applet, or the `pstlogon` or `dbaliaslogon` parameters in the `pstserv` configuration file (`pstserv.cfg`) for UNIX or Linux.

Optim Directory Access

To use the Optim Directory information from the Server:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Server** for the **Optim Directories** option.

UNIX or Linux

For `pstserv.cfg`, set the `pstlogon` parameter to “server.”

To use the Optim Directory information from each initiating client:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Client** for the **Optim Directories** option.

UNIX or Linux

For `pstserv.cfg`, set the `pstlogon` parameter to “client.”

DB Alias Access

To use the DB Alias information from the Server:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Server** for the **DB Aliases** option.

UNIX or Linux

For `pstserv.cfg`, set the `dbaliaslogon` parameter to “server.”

To use the DB Alias information from each initiating client:

Windows

On the **Security** tab of the Optim Server Settings applet, select **Client** for the **DB Aliases** option.

UNIX or Linux

For `pstserv.cfg`, set the `dbaliaslogon` parameter to “client.”

Maintain DBMS Logon Credentials

The connection string you specify on the Optim Server Settings applet (for Windows) or in the configuration file (for UNIX or Linux) is always used, regardless of whether Server or Client is the source of the credentials for Optim Directory and DB Alias access. You must specify a connection string to access an Optim Directory and use a DB Alias; otherwise, the Optim process will fail.

If Server is the source of DBMS logon credentials, specify the following:

Windows

On the **Connection** tab of the Optim Server Settings applet, provide a User ID, Password, and Connection String.

UNIX or Linux

For `pstlocal.cfg`, provide a *userid*, *password*, and *connect-string* for the `pstdir` and `dbalias` parameters.

If Client is the source of DBMS logon credentials, specify the following for the Server machine:

Windows

On the **Connection** tab of the Optim Server Settings applet, provide a Connection String only (User ID and Password are ignored).

UNIX or Linux

For `pstserv.cfg`, provide a *connect-string* for the `pstdir` and `dbalias` parameters (*userid* and *password* are ignored).

Also, if Client is the source of DBMS logon credentials, you must specify the following for the client machine:

Windows

On the **Logon** tab in Personal Options, provide the User ID and Password. Also, provide a valid Connection String for the client to connect to the Optim Directory and use the DB Alias.

UNIX or Linux

For `pstlocal.cfg`, provide a *userid* and *password* for the `pstdir` and `dbalias` parameters. Also, provide a valid *connect-string* for the client to connect to the Optim Directory and use the DB Alias.

Appendix C. Command Line Maintenance Tasks

Optim provides a Command Line Interface that allows you to perform certain configuration tasks, without using the graphical user interface for Optim. You can run the Command Line Interface from the command line, in a batch file, or from another program.

Command Line Tasks

You can use the Command Line Interface to:

- Create one or more DB Aliases.
- Update (refreshing the DB signature) one or more DB Aliases.
- Apply maintenance to one or more DB Aliases.
- Apply maintenance to one or more Optim Directories.

The following sections explain and describe how to perform each of these tasks.

Guidelines

The typical command consists of PR0CNFG followed by keywords and associated arguments. The following guidelines apply:

- All keywords must be prefixed by a forward slash (/) or a dash (Δ) and separated from one another by one or more spaces. Do not use commas.
- Keywords must be separated from arguments by an equal sign (=) or a colon (:).
- Using a keyword that is inappropriate for the type of processing may cause a fatal conflicting-parameter error.
- The DBMS type keyword must precede the DBMS version keyword. All other keywords can be specified in any order.
- If you use a keyword more than once for a task, the last instance applies.
- You can include all keywords and arguments for one or more tasks in a text file, and reference this parameter file on the command line.
- In a parameter file, keywords and arguments for a task may be on more than one line. Note that lines after the line containing the TASK keyword are processed in the next task, if any.
- If a keyword required for a task is omitted, values specified for the previous task, or values specified the last time the Configuration program was run, are used by default.

Note: This feature may be advantageous for a series of tasks that share the same setting for one or more parameters.

- An argument that includes spaces must be enclosed in single or double quotes.
- To clear a parameter, specify the value as an empty string, i.e., " " .

Syntax Conventions

The syntax conventions used to describe these statements are

KEYWORD

Keywords are shown in upper case for emphasis, but can be specified in lower or mixed case.

text Variable text is shown in lower-case italics.

() Statement delimiter to group a series of qualifiers for a parameter.

- [] An optional keyword or argument is shown in square brackets.
- { } A choice of settings from which only one must be selected is shown in curved brackets.
- < > A choice of settings from which none or any may be selected is shown in angle brackets.
- | Separates options.

Syntax and Keywords

This section describes the command-line syntax and keywords.

Syntax

Use the following command-line syntax.

General

```
PROCNFG [ /NOLOGO ] /FILE={ filename |
    /AUTORUN={ TRUE | FALSE | ON | OFF | YES | NO }
    /GRANTAUTHID={ userid | PUBLIC }
    [/RESPONDFILE=filename ]
    [ /IGNORE ]
```

Optim Directory

```
/PSTDIRNAME={ pstdirname | currentdir }
/PSTDIRID=pstidir
/PSTDIRCONNECTSTR=dbmscnctionstr
/PSTDIRPASSWORD=password
/PSTDIRUSERID=userid
```

DB Alias

```
/DBAACTION={CreateNew | UseExisting }
/DBANAME=dbaliasname
/CONNECTSTR=dbmscnctionstr
/PASSWORD=password
/PASSWORDREQUIRED={TRUE | FALSE | ON | OFF | YES | NO }
/USERID=userid
/DBMSTYPE={DB2MVS | INFORMIX | ORACLE | SYBASE | SQLSERVER }
/DBMSVERSION=versionnum
/DBQUALIFIER=databasequal
/SPSHARE={ TRUE | FALSE | ON | OFF | YES | NO }
/DESCRIPTION="description"
/UNICODEDB={ TRUE | FALSE | ON | OFF }
/MULTIBYTEDB={ TRUE | FALSE | ON | OFF }
```

Optim Directory or DB Alias

```
{ /SPACTION | /BINDACTION }={ CreateNew | UseExisting }
{ /SPQUALIFIER | /COLLECTIONNAME }=name
```

Task

```
TASK={ DB | MAINTPST | MAINTCAT } }
```

Keywords

This section defines the keywords specified in the syntax.

General

PROCNFG

Initiate command-line processing. Note: the character following PR is the number 0 (zero).

/NOLOGO

Suppress the splash logo.

/FILE=

The source of parameters or the parameters.

filename

The fully qualified path and name of a text file containing parameters for one or more tasks. You must enclose a filename that includes blanks in quotations.

parameters

As follows.

/AUTORUN=

Level of user intervention when running.

TRUE, ON, or YES

Run the Configuration program in AutoRun mode, hiding dialogs unless user intervention is required to correct or cancel the task. If an error cannot be corrected, the error message is displayed on the Log dialog. (Default for a parameter file.)

FALSE, OFF, or NO

Run the Configuration program normally, displaying all dialogs. (Default for parameters from the command line.)

/GRANTAUTHID=

Identifier for authorized users. Specify a user ID, Group Name, or \triangle Public \triangle . When Public is specified all users can run Optim.

/RESPONDFILE=

The source of default values for Message IDs when AUTORUN=ON.

filename

The fully qualified path and name of a text file. A sample file, RESPOND.PST, in the RT/BIN directory can be modified and used as necessary. You must enclose a filename that includes blanks in quotations.

/IGNORE

Begin a comment or disregard parameters. All parameters that follow and are on the same line have no effect on processing.

Optim Directory**/PSTDIRNAME=**

Optim Directory for the task.

pstdirname

Name of the Optim Directory

currentdir

The current Optim Directory (default).

/PSTDIRID=

Identifier that prefixes Optim Directory table names.

pstdirid

Schema Name, Creator ID, or Owner ID for the Optim Directory tables.

/PSTDIRCONNECTSTR=

Connection to the Optim Directory.

dbmscnctstr

Name that permits access to the database containing the Optim Directory.

/PSTDIRPASSWORD=

Password for connection.

password

A value is required if the Always Prompt for Password option is active for the Optim Directory.

/PSTDIRUSERID=

User account with DBMS permission to connect.

userid If /TASK=MAINTPST, the user account must have the authority, through System Privileges or Roles, to create the tables and to catalog the packages, plans, or procedures under the appropriate table identifier.

DB Alias**/DBAACTION=**

Processing indicator for the DB Alias.

CreateNew

Create a new DB Alias named by DBANAME.

UseExisting

Use the existing DB Alias indicated by DBANAME.

/DBANAME=

Name of DB Alias.

dbaliasname

Required if /TASK=DB or /TASK=MAINTCAT.

/CONNECTSTR=

Connection string for the database associated with the DB Alias.

dbmscnctstr

Required if /TASK=DB or /TASK=MAINTCAT.

/PASSWORD=

Password for connection.

password

Required if the Always Prompt for Password option is active for the DB Alias or if creating a DB Alias using /TASK=DB.

/PASSWORDREQUIRED=

Always Require Password option for a new DB Alias (/TASK=DB). Keyword is ignored for an existing DB Alias.

TRUE, ON, or YES

Always require a password.

FALSE, OFF, or NO

Save the password in the registry.

/USERID=

User account with DBMS permission to connect to database associated with the DB Alias.

Required if the Always Prompt for Password option is active for the DB Alias or if creating a DB Alias using /TASK=DB.

userid If /TASK=DB and you are creating a new DB Alias or if /TASK=MAINTCAT, the user account must have the authority, through System Privileges or Roles, to create the tables and to catalog the packages, plans, or procedures under the appropriate table identifier.

/DBMSTYPE=

The DBMS associated with the DB Alias. Required if /TASK=DB.

DB2MVS
SYBASE
INFORMIX
ORACLE
SQLSERVER

/DBMSVERSION=

The version of the DBMS associated with the DB Alias. /DBMSVERSION must follow /DBMSTYPE.

versionnum

Required if /TASK=DB.

/DBQUALIFIER=

Database name.

databasequal

Required if /TASK=DB and DBMS is Sybase ASE, SQL Server, or Informix.

/SPSHARE=

Indicator for sharing Stored Procedures for multiple Sybase ASE or SQL Server DB Aliases when /TASK=DB.

TRUE, ON, or YES

Stored procedures are shared. For Sybase, stored procedures are stored in the special Sybase ASE database sybsysprocs. For SQL Server, stored procedures are stored in the MASTER database. Microsoft SQL Server documentation contains a cautionary statement about creating stored procedures in the MASTER database. Consider the implications of sharing stored procedures for SQL Server before proceeding.

FALSE, OFF, or NO

Stored procedures are not shared.

/DESCRIPTION=

Optional description for DB Alias. (/TASK=DB)

"description"

1 - 40 characters, delimited by double quotation marks.

/UNICODEDB=

Store Optim Directory data in Unicode format.

TRUE or ON

Store data in Unicode format.

FALSE or OFF

Do not store data in Unicode format.

/MULTIBYTEDB=

Use multibyte encoding for the DB Alias.

TRUE or ON

Use multibyte encoding.

FALSE or OFF

Do not use multibyte encoding.

Optim Directory or DB Alias

The following keywords are interchangeable, and are not DBMS-dependent.

{ /SPACTION | /BINDACTION }=

Indicator for Optim Stored Procedures or Optim Bind Files.

CreateNew

Create new Stored Procedures or Bind Files.

UseExisting

Use previously loaded Stored Procedures or Bind Files.

{ /SPQUALIFIER | /COLLECTIONNAME }=

name Schema Name or Owner ID of the Stored Procedures, or Plan Name of the Bind Files.

Task

The TASK keyword identifies the task to be performed. If a task is entered on the command line, you must provide the parameters on the same line. When using a parameter file, the TASK keyword signals the end of a list of parameters for a task; keywords on lines following a TASK keyword are processed in the next task, if any, or are ignored if no new TASK keyword is found.

TASK=

The task identifier, as follows:

DB Create or update a single DB Alias.

MAINTPST

Apply maintenance to a single Optim Directory.

MAINTCAT

Apply maintenance to a single DB Alias.

Examples - Create Multiple DB Aliases with One Optim Directory

To create multiple DB aliases with one Optim Directory, the first step is to create a text file with the appropriate parameters for the tasks.

For this example, the text file is called C:\Cre_dba.txt.

```
/PSTDirName=ORA_LOCAL /PSTDirUserID=roberts
/PSTDirPassword=softech /DBAAction=createnew
/DBAName=AUDB_LOCAL /DBMSType=ORACLE
/DBMSVERSION=6.1
/ConnectStr=sample /UserID=roberts /Password=robbie
/SPAction=createnew /Description="Local ORA V 6.1 Sample"
/Task=DB

/DBAAction=createnew /DBAName=ASYB_LOCAL
/DBMSType=SYBASE /DBMSVERSION=11.9.2
/ConnectStr=roberts /UserID=roberts /Password=robbie
/DBQualifier=roberts /SPAction=createnew /SPShare=True
/Description="Local Sybase V 11.9.2 roberts" /Task=DB

/DBAAction=createnew /DBAName=AROBDB3
/DBMSType=SYBASE /DBMSVersion=11.9.2
/ConnectStr=roberts
/UserID=roberts /Password=robbie /DBQualifier=robdb3
/SPAction=Useexisting /SPShare=True /Description="Local
Sybase V 11.9.2 robdb3" /Task=DB

/DBAAction=createnew /DBAName=AROBDB4
/DBMSType=SYBASE /DBMSVersion=11.9.2
/ConnectStr=roberts
/UserID=roberts /Password=robbie /DBQualifier=robdb4
/SPAction=UseExisting /SPShare=True /Description="Local
Sybase V 11.9.2 robdb4" /Task=DB
```

To perform the tasks from the command line, specify


```
PROCNFG /FILE=C:\Cre_dba.txt
```

Examples - Apply Maintenance to Multiple DB Aliases

To apply maintenance to multiple DB aliases, the first step is to create a text file with the appropriate parameters for the tasks.

For this example, the text file is called C:\Maint_dba.txt:

```
/PSTDirName=ORA_LOCAL /PSTDirUserID=roberts
/PSTDirPassword=softtech /DBAAction=useexisting
/DBAName=DB_LOCAL /UserID=roberts
/PASSWORD=fido /Task=MAINTCAT
/DBAAction=useexisting /DBAName=ASYB_LOCAL
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AROBDB3
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AROBDB4
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AORA_LOCAL
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AMSSQL_LOCAL
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AIFX_LOCAL
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=AIFX_LOCALNA
/Task=MAINTCAT
/DBAAction=useexisting /DBAName=APSTDSONY
/Task=MAINTCAT
```

To perform the tasks from the command line, specify:

```
PROCNFG /FILE=C:\Maint_dba.txt
```

Appendix D. Optim Security

Optim provides three types of security. For each Optim Directory, you may establish any or all of the following types of security: Functional Security, Object Security, and Archive File Security.

Functional Security

As the most general level of Optim Security, Functional Security allows you to control user access to the interface for functions provided by Optim.

For example, for a specialized administrator role that is intended to create process requests and objects needed to run these requests, you can grant unlimited access to functions. For members of a role intended only to run the predefined process requests, however, you can grant more limited access to functions.

As a second example, you might use Functional Security to grant access to the Archive-specific editors (Archive Request, Delete Request, and Restore Request) as well as the Archive maintenance utilities to members of a specialized Archive role while denying access to these editors for developers that use Optim functions to create test data.

Establishing Functional Security requires that you edit the Access Control Domain (ACD) named (Default) to define roles and, for each role, grant or deny Functional Privileges. The (Default) ACD is a security definition (i.e., a type of object in the Optim Directory) and is created automatically when Optim Security is initialized. Functional Privileges are defined in the (Default) ACD only. After editing the (Default) ACD, you must enable Functional Security using the Configuration program for the Functional Security settings to take effect.

You can also use Functional Security to define Object Association Privileges, which determine the ACDs a role can associate with Access Control Lists (ACL), used by Object Security to secure objects. Within each ACD, you can define Object Association Privileges for specific object types. For example, if an ACD denies a role the Associate Archive Requests privilege, the role cannot use that ACD in an ACL that secures an Archive Request.

Establish Functional Security

This section describes how to establish Functional Security.

To establish Functional Security:

1. Using the Configuration program, initialize Optim Security and assign a Security Administrator as described in “Optim Security” on page 120.
2. Edit the (Default) ACD to map roles to network accounts.
3. For each role, grant or deny the appropriate Functional Privileges, and if Object Security will also be enabled, grant or deny the appropriate Object Association Privileges, as described in “Assigning Privileges” on page 396.
4. Using the Configuration program, enable Functional Security, as described in “Set Functional Security Option” on page 176.

Object Security

Object Security allows you to control access to specific objects in the Optim Directory, using an Access Control List (ACL). Any Optim object can be secured by associating it with an ACL. An ACL lists roles and grants or denies privileges for each role to read, update, delete, or execute (where appropriate) the object and the ACL.

For example, you might define an ACL to allow members of a role to read and execute, but not edit, a specific Archive Request. Optim can also be configured to secure objects automatically so that a default ACL (which can be edited) is defined when the object is saved to the Optim Directory.

Note: When Object Security is enabled, the size of the fully-qualified name for a Primary Key and a Relationship is restricted, as described in the *Common Elements Manual* .

The roles in an ACL are defined in an ACD associated with the ACL. If Functional Security is enabled, a member of a role that is granted an Object Association Privilege in an ACD for an object type (e.g., Associate Access Definition privilege) can use the ACD to define roles in an ACL for that object type. Object Association Privileges are not required to use Object Security; however, these privileges must be defined to secure objects if both Functional and Object Security are enabled.

Once an object is associated with an ACL it is considered to be “secured,” although Object Security must be enabled for the security defined in the ACL to be effective. ACDs and File Access Definitions are automatically associated with an ACL, whether or not Object Security is enabled using the Configuration program.

Establish Object Security

This section describes how to establish Object Security.

To establish Object Security:

1. Using the Configuration program, initialize Optim Security and assign a Security Administrator as described in “Optim Security” on page 120.
2. Using the Configuration program, enable Object Security, as described in “Set Optim Object Security Option” on page 176:
 - Indicating whether selected objects are automatically assigned an ACL when saved.
 - Defining the Object Template ACL.
3. Edit the (Default) ACD and any additional ACDs to map roles to network accounts.

Archive File Security

Archive File Security allows you to control access to data in Archive Files. For example, you might use Archive File Security to prevent any access to data in a specific table or column for most users while granting access to members of selected roles for the same data.

Each secured Archive File is associated with a File Access Definition (FAD), which is a security definition that lists tables and columns for which access privileges are defined and, for each listed role, grants or denies privileges to access the archived data.

Establishing Archive File Security requires an ACD (the (Default) ACD or one you create for the purpose) used as the basis for roles in the FAD. In addition, you must use the Configuration program to enable Archive File Security.

Access Control Domains

The Access Control Domain is a security definition that serves as the foundation for all levels of Optim Security. Each Optim Directory for which Optim Security is initialized contains an ACD named (Default) that cannot be deleted. Depending upon the needs of your facility, you may create additional ACDs or use only the (Default) ACD. Each ACD includes a list of roles. Each role represents a logical grouping of user and group accounts in your network. Typically you might assign names of roles to convey the capabilities of the accounts represented by the role. Examples of role names might be “GUEST”, “NORMAL”, and “SUPER”. User and group accounts are mapped to one or more roles, as appropriate.

The role specifications in the (Default) ACD are referenced for Functional Security, if enabled for the Optim Directory. Also, the role specifications in the (Default) or other ACD are referenced by Access Control Lists (used to secure objects) and File Access Definitions (used to secure Archive Files) and assigned privileges to access the object or Archive File.

Access Control List

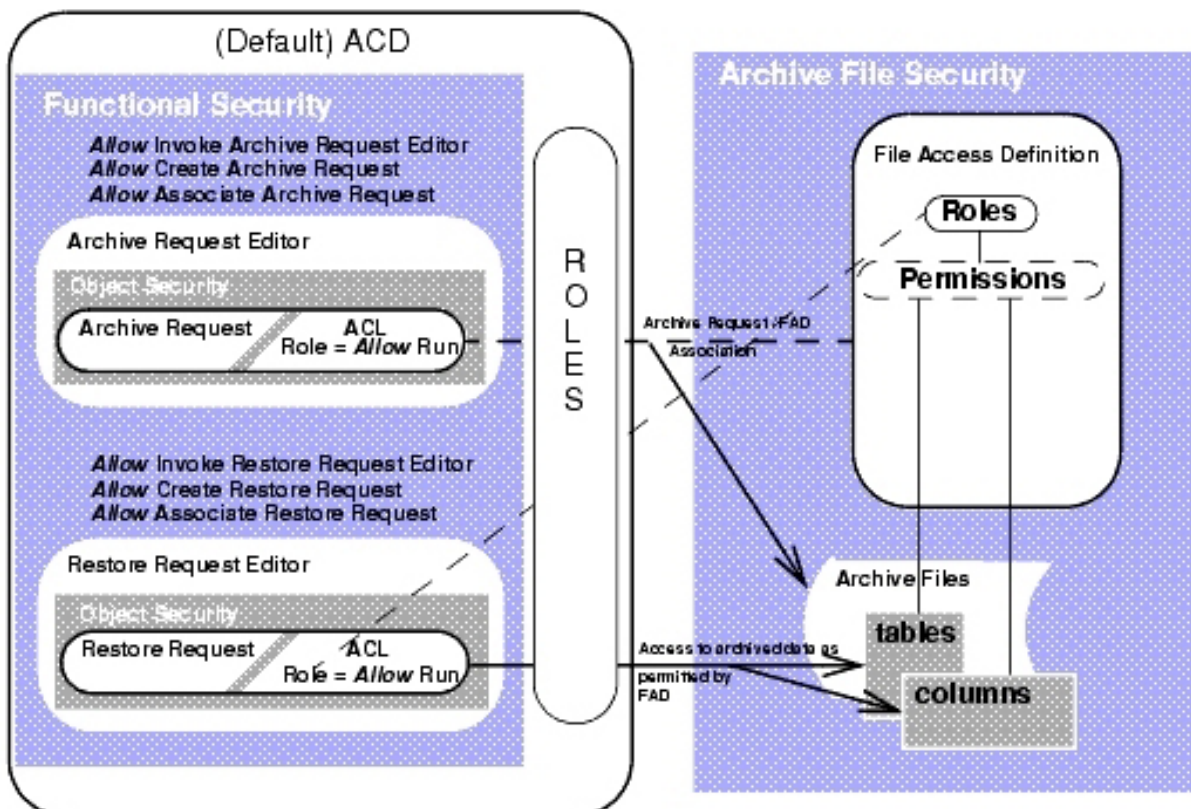
The Access Control List is an Optim object that serves as the basis for Object Security. ACL parameters govern the ability of a role to perform actions (such as read, update, or delete) on both the object and the ACL for the object. Each ACD, File Access Definition, and secured Optim object has a unique ACL.

File Access Definition

The File Access Definition is the basis for Archive File Security. All Archive Files generated by running an Archive Request that references an FAD are secured by the FAD.

Security Diagram

The following diagram illustrates the features of Optim Security.



The (Default) ACD, an object in the Optim Directory, is the linchpin for the three levels of Optim Security. In the (Default) ACD, arbitrarily named roles are linked to network accounts used as logons when performing tasks.

Functional Security

The (Default) ACD selectively grants and denies Functional Security privileges for roles in order to provide appropriate access to the interface and functions. For example, a member of a role expected to run an Archive Request online must be allowed the Invoke Archive Request Editor privilege, while a member of a role expected to create a secured Archive Request must be allowed the Create Archive Request and Associate Archive Request privileges.

Object Security

Secured objects (including ACDs and File Access Definitions) have an ACL that grants and denies read, update, delete, and execute permissions to a subset of roles defined in the (Default) ACD. (At your option, these roles can be defined in a specialized ACD, rather than the (Default) ACD.) In the illustration, ACLs for the Archive and Restore Requests must grant run (execute) permission to roles expected to run these requests.

Archive File Security

A File Access Definition (FAD) defines the security rules for data in one or more Archive Files created by an Archive Request that references the FAD. The FAD in the diagram may grant access to archived data in selected tables and columns and deny access to data in others. The logon account used to run the Restore Request must be represented by a role in the FAD that is granted the necessary access to archived data.

Configure Security

To use Optim Security, you must initialize security for the Optim Directory, assign a Security Administrator, and enable the security features your site will use.

To initialize Optim Security and assign a Security Administrator, use one of the following **Tasks** menu options in the Configuration program:

- Configure the First Workstation
- Configure Security for an Optim Directory
- Create/Update Optim Directory
- Configure Options

To enable or disable the security features, select **Configure Security for an Optim Directory** from the **Tasks** menu in the Configuration program.

For more information, see “Configure Security for an Optim Directory” on page 173.

Establish Archive File Security

This section describes how to establish Archive File security.

To establish Archive File security:

1. Using the Configuration program, initialize Optim Security and assign a Security Administrator as described in “Optim Security” on page 120.
2. Using the Configuration program, enable Archive File Security, as described in “Set Archive File Security Option” on page 179.
3. Edit the (Default) ACD and any additional ACDs to map roles to network accounts.

4. Create and edit each FAD, using roles in the appropriate ACD.
5. Reference the appropriate FAD in each Archive Request used to create secured Archive Files.

Access Control Domain

Use the Access Control Domain Editor to create and maintain Access Control Domains. There are different ways to open the editor depending upon whether you want to create a new Access Control Domain or select an Access Control Domain to edit.

Create a New ACD or Select an ACD to Edit

This section explains how to create or edit an Access Control Domain.

To create or edit an Access Control Domain:

1. In the main window, select **Access Control Domains** from the **Security** submenu on the **Options** menu to open the Access Control Domains dialog.
2. The next step depends on your purpose:
 - To create a new ACD, select **New ACD** from the **Tools** menu in the Access Control Domains dialog to open the Access Control Domain Editor.
 - To edit an existing ACD, double-click the grid row to display the desired ACD in the Access Control Domain Editor.
3. **Optional.** In the Access Control Domain Editor, right-click the **Role List** and select **New** or **Open** from the shortcut menu to open the Role Specifications dialog and define or edit roles in the Role Specifications dialog.
4. Save the role.
5. Save the ACD.
6. **Optional.** Edit the ACL for the ACD.
7. Click **OK** to save the ACD.

These steps are the minimum required to create an ACD. Refer to “Access Control Domain Editor” on page 390 for complete details.

Access Control Domains List

The Access Control Domains dialog lists all ACDs in the Optim Directory. You must use this dialog to open the Access Control Domain Editor needed to create a new ACD or edit an existing ACD.

From the Access Control Domains dialog, you can also list any FADs and ACLs that are based upon a listed ACD, which may be useful when maintaining ACDs. The list may help you to select an ACD to serve as the basis for a new FAD or ACL or to analyze the potential downstream effect of a change to the ACD. Also, from the list, you can display an FAD or ACL to determine whether it references a role that should be included in the ACD.

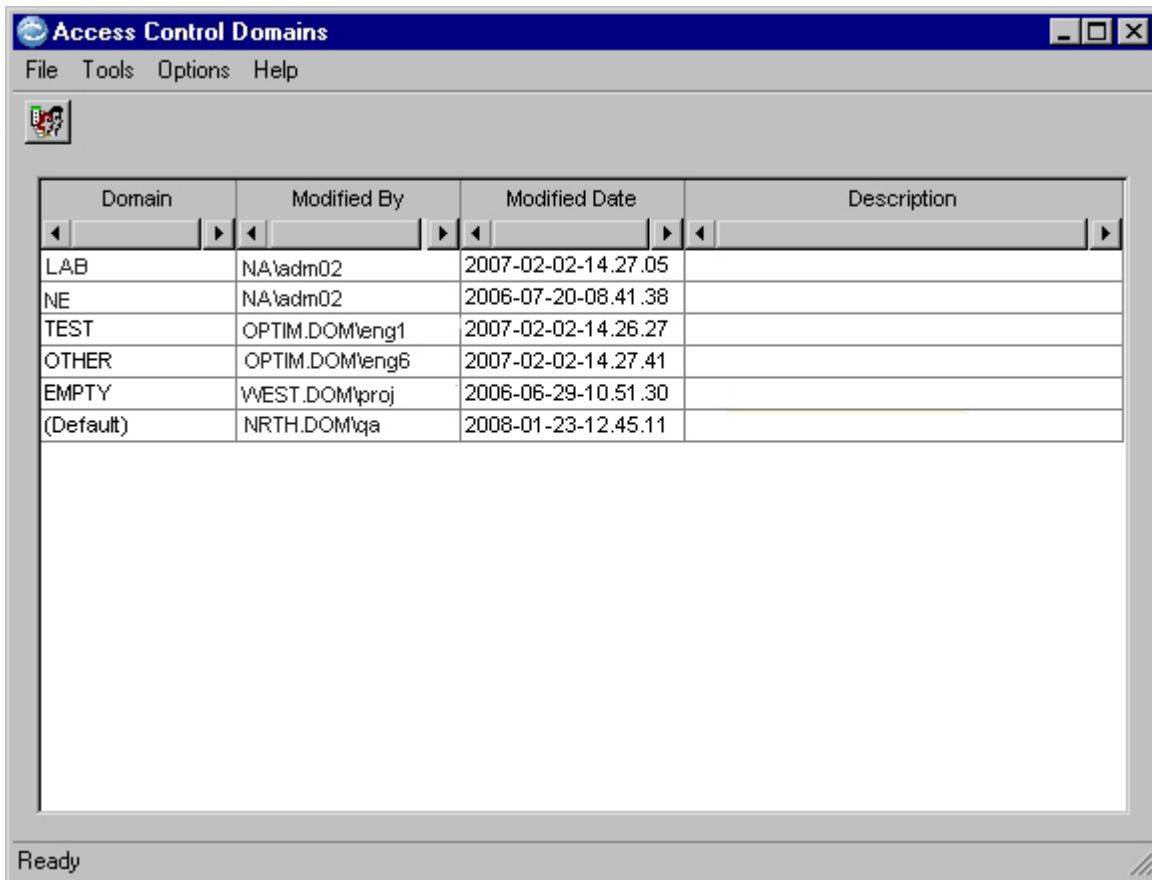
Each Optim Directory for which security is initialized contains an ACD named (Default), which is the default ACD for secured objects in the directory. (Default) also determines the roles that can create and modify additional ACDs.

Permissions Needed to Create an ACD

To create an ACD, a user account must be a member of a role allowed the Create Access Control Domain privilege in the (Default) ACD. If Functional Security is not enabled, a user account must be a member of a role with update access to the ACL for the (Default) ACD.

Open Dialog

In the main window, select **Security** from the **Options** menu. Then select **Access Control Domains** from the submenu to open the Access Control Domains dialog.



The Access Control Domains dialog lists the ACDs in a read-only grid.

Domain

The ACD name.

Modified By

The identifier for the user account used to create or last modify the entry.

Modified Date

The date and time the ACD was created or last modified.

Description

Optional text that describes the ACD.

To open the Access Control Domain Editor and create a new ACD, click the **New ACD** toolbar button, select **New ACD** from the **Tools** menu, or use the shortcut menu. You can also use the shortcut menu to delete an ACD, list FADs and ACLs that are based upon the ACD, or open the ACL for the ACD.

Note: Access permissions in the ACL for the ACD determine the options and actions that are available to you. For example, the **Delete** shortcut menu option is not available to roles limited to read access.

Shortcut Menu Commands

Although similar to the Open dialog described in detail in the *Common Elements Manual*, the Access Control Domains dialog provides the following specialized shortcut menu commands:

New ACD

Open the Access Control Domain Editor to create a new ACD.

Open Open the Access Control Domain Editor to view or edit the selected ACD.

Delete Delete the selected ACD from the Optim Directory. (Not available for the (Default) ACD.)

Note: When you delete an ACD, the (Default) ACD becomes the basis for any FADs or ACLs based upon the ACD. Roles that do not exist in the (Default) ACD are denied access.

List Object ACLs

Open the Open Object Access Control List dialog, which lists the ACLs based upon the selected ACD.

This option is available only if the ACD is the basis for one or more ACLs. (Not available for the (Default) ACD.)

View or Edit ACD

To view or edit an ACD in the Access Control Domain Editor, double-click the grid row or select **Open** from the shortcut menu.

Note: Until network accounts are added to the Optim Administrator role or new roles are created in the (Default) ACD and granted Update access in the ACL, only the Security Administrator for the Optim Directory can edit (Default).

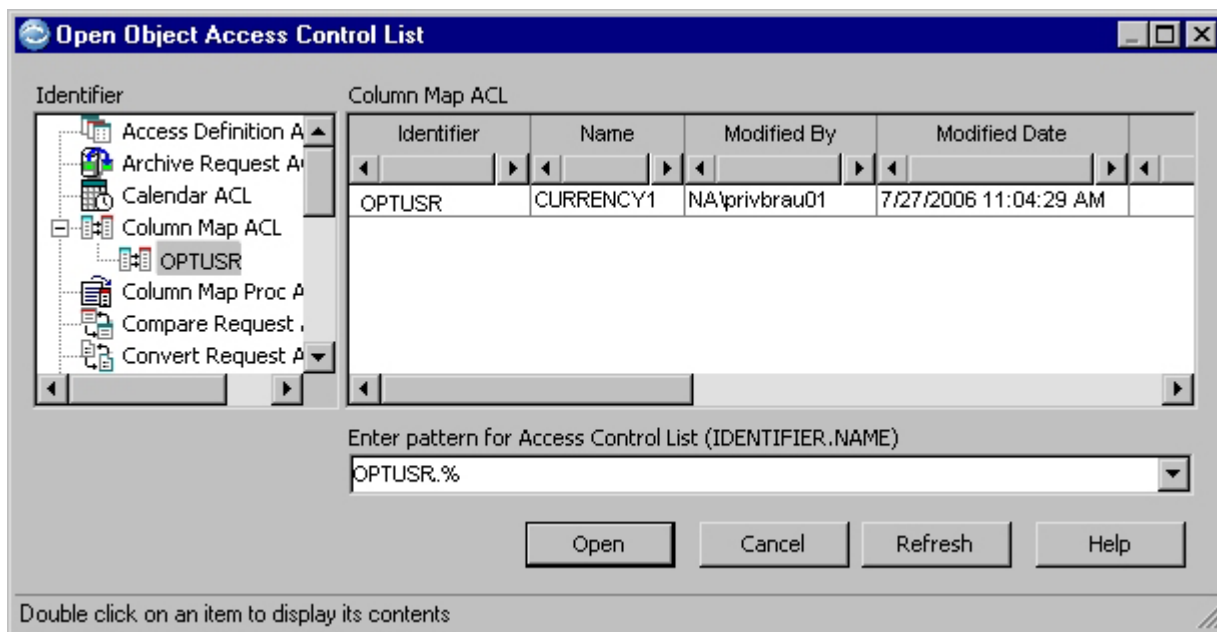
Create ACD

To create an Access Control Domain, a user must be a member of a role in the (Default) ACD, and:

- If Functional Security is not enabled, the user must be the Security Administrator or included in a role that has update access to the (Default) ACD.
- If Functional Security is enabled, the role must be allowed the Functional Privilege for Access Control Domains in the Create Security Definitions class.

Open Object Access Control List

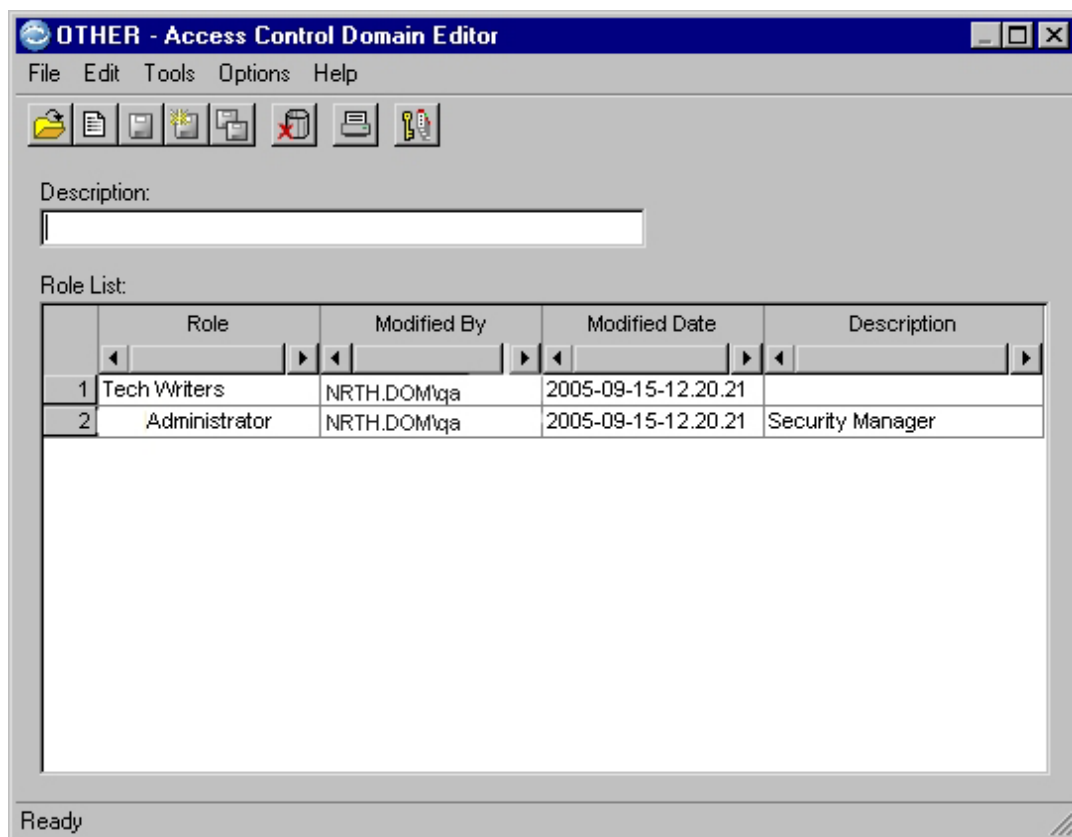
Use the Open Object Access Control List dialog to list and display the ACLs associated with an ACD. Open this dialog by selecting **List Object ACLs** from the shortcut menu on the Access Control Domains dialog. This option is not available for the (Default) ACD. The Open dialog is discussed in detail in the *Common Elements Manual*.



Access Control Domain Editor

The Access Control Domain Editor lists roles in the ACD. The name of the ACD is displayed at the top of the dialog. The **Role List** displays the roles in the ACD.

When you open the Access Control Domain Editor by selecting **New ACD** from the **Tools** menu in the Access Control Domains dialog, the Optim Administrator role is displayed by default. You can also open the Access Control Domain Editor for an existing ACD by double-clicking the name of an ACD listed in the Access Control Domains dialog.



To add, edit, or delete a role, use the shortcut menu to open the Role Specifications dialog, which is used to create and modify roles for an ACD and, if Functional or Object Security is used at your facility, to grant or deny related privileges to those roles.

Description

Optional text that describes the ACD (up to 40 characters).

Role List

A grid that displays the roles in the ACD and includes the following:

Role The role name.

Modified By

The identifier for the user account used to create or last modify the entry.

Modified Date

The date and time the role was created or last modified.

Description

Text that describes the role.

Shortcut Menu

Right-click the **Role List** grid to display the shortcut menu commands.

New Open the Role Specifications dialog to create a new role.

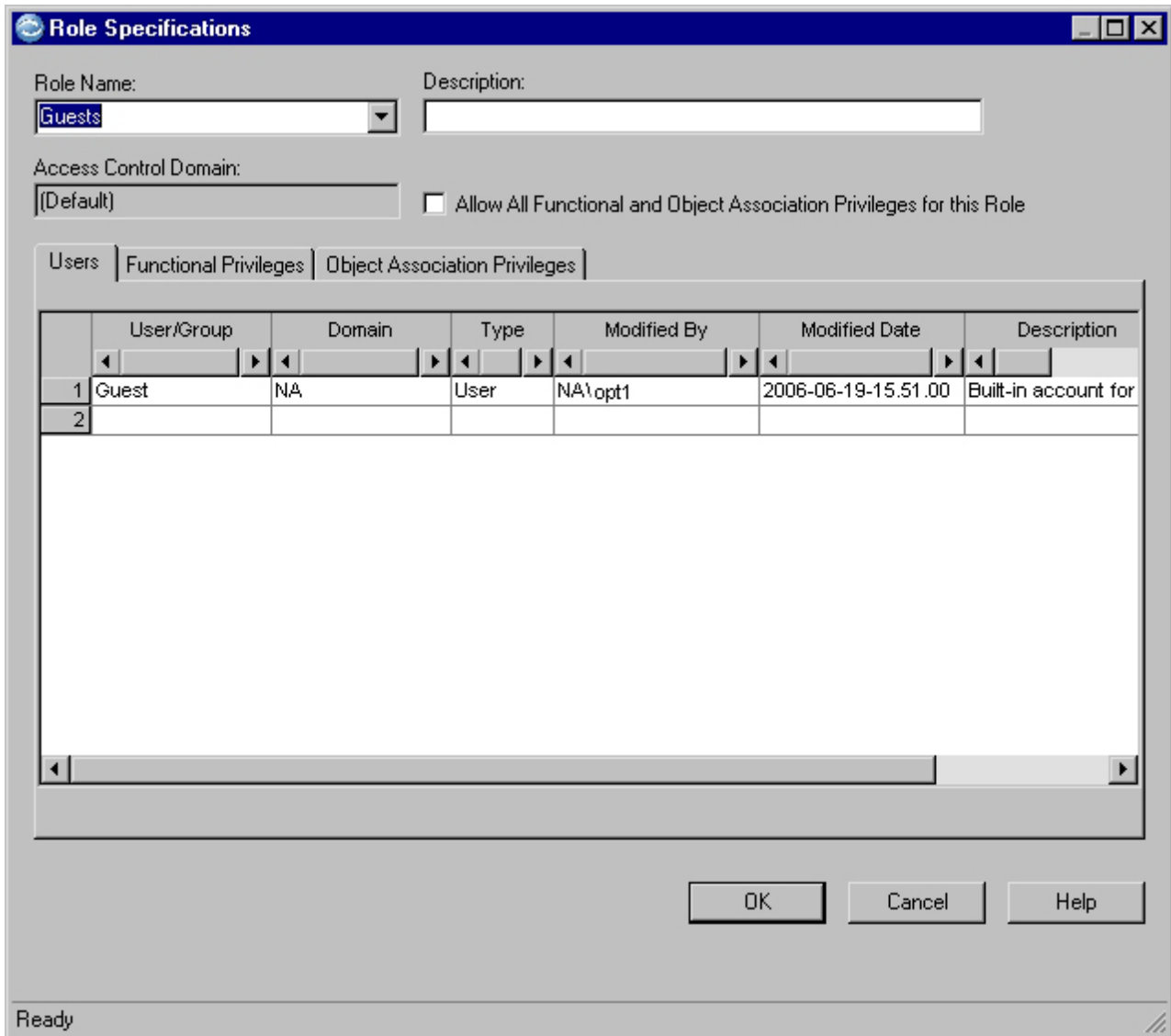
Open Open the Role Specifications dialog to view or edit the selected role.

Delete Delete the selected role from the ACD. A confirmation prompt is displayed if Personal Options are set to provide it.

Note: The **Open** and **Delete** commands are not available for roles that are denied update access.

Role Specifications

The Role Specifications dialog allows you to create or edit a role within an ACD. From the dialog, you can identify the user and group accounts that are members of the role and assign access permissions. For roles in the (Default) ACD, you can also grant or deny access to functions in Optim for a role.



The Role Specifications dialog box is shown with the following fields and controls:

- Role Name:** A dropdown menu with "Guests" selected.
- Description:** An empty text field.
- Access Control Domain:** A dropdown menu with "(Default)" selected.
- ☐ Allow All Functional and Object Association Privileges for this Role
- Users | Functional Privileges | Object Association Privileges** (tabbed interface, currently on "Users")
- Table:**

	User/Group	Domain	Type	Modified By	Modified Date	Description
1	Guest	NA	User	NA\opt1	2006-06-19-15.51.00	Built-in account for
2						

At the bottom of the dialog are buttons for **OK**, **Cancel**, and **Help**. The status bar at the bottom left shows "Ready".

Note: You must save the ACD in order to save any changes made to the role, including Functional or Object Association Privileges.

Role Name

The role name (up to 30 characters). To create a new role for the ACD, type the name or select from a history list of role name entries.

- You cannot use the **Role Name** history list to navigate from role to role in the ACD. You must open each role from the Access Control Domain Editor.
- It is possible to assign identical names to roles made up of different user accounts, if the roles are in different ACDs. For simplicity, a consistent naming convention that prevents duplicate role names may be advisable. However, duplicate role names may be useful if you wish to use the Optim Object

Template ACL with more than one ACD. In this case, the Template ACL would assign access permissions to a standard set of roles with the role members varying by ACD.

You can use a role that is displayed in the Role Specifications dialog as a model to create a new role or replace another role in the ACD by typing or selecting a Role Name from the history list.

Description

Optional text that describes the role (up to 40 characters).

Access Control Domain

The ACD for the role.

Allow All Privileges for this Role

Select the **Allow All Functional and Object Association Privileges** check box to allow the role all Functional (if editing the (Default) ACD) and Object Association Privileges. When this check box is selected, the **Allow All** and **Allow** check boxes are selected and cannot be cleared. Also, the **Allow All**, **Deny All**, and **Clear All** command buttons and the shortcut menus are unavailable. When the check box is cleared, the **Allow All** and **Allow** check boxes remain selected but can be cleared.

Tabs

The Role Specifications dialog includes the following tabs:

Users The user and group accounts in the role.

Functional Privileges

Access privileges to functions for accounts in the role.

Note: The **Functional Privileges** tab is available only from the (Default) ACD.

Object Association Privileges

Permissions to use the ACD to secure Optim objects for accounts in the role.

Users Tab

Use the **Users** tab to add and delete user and group accounts in a role.

User/Group

A user or group account from a network domain (up to 256 characters for users and up to 85 characters for groups).

Domain

The network domain or UNIX node name that includes the user or group account.

Type

Type of account. If entering the account manually, select the correct Type to validate the account.

Modified By

The identifier for the user account used to create or last modify the entry.

Modified Date

The date and time the account was created or last modified.

Description

Text that describes the user or group account.

Shortcut Menu Commands

Right-click the grid to display the following shortcut menu commands:

Add Users/Groups

Open the Security Users and Groups dialog, used to select multiple user and group accounts from a list of members in a network domain.

Remove

Remove the selected user or group account from the role.

Remove All

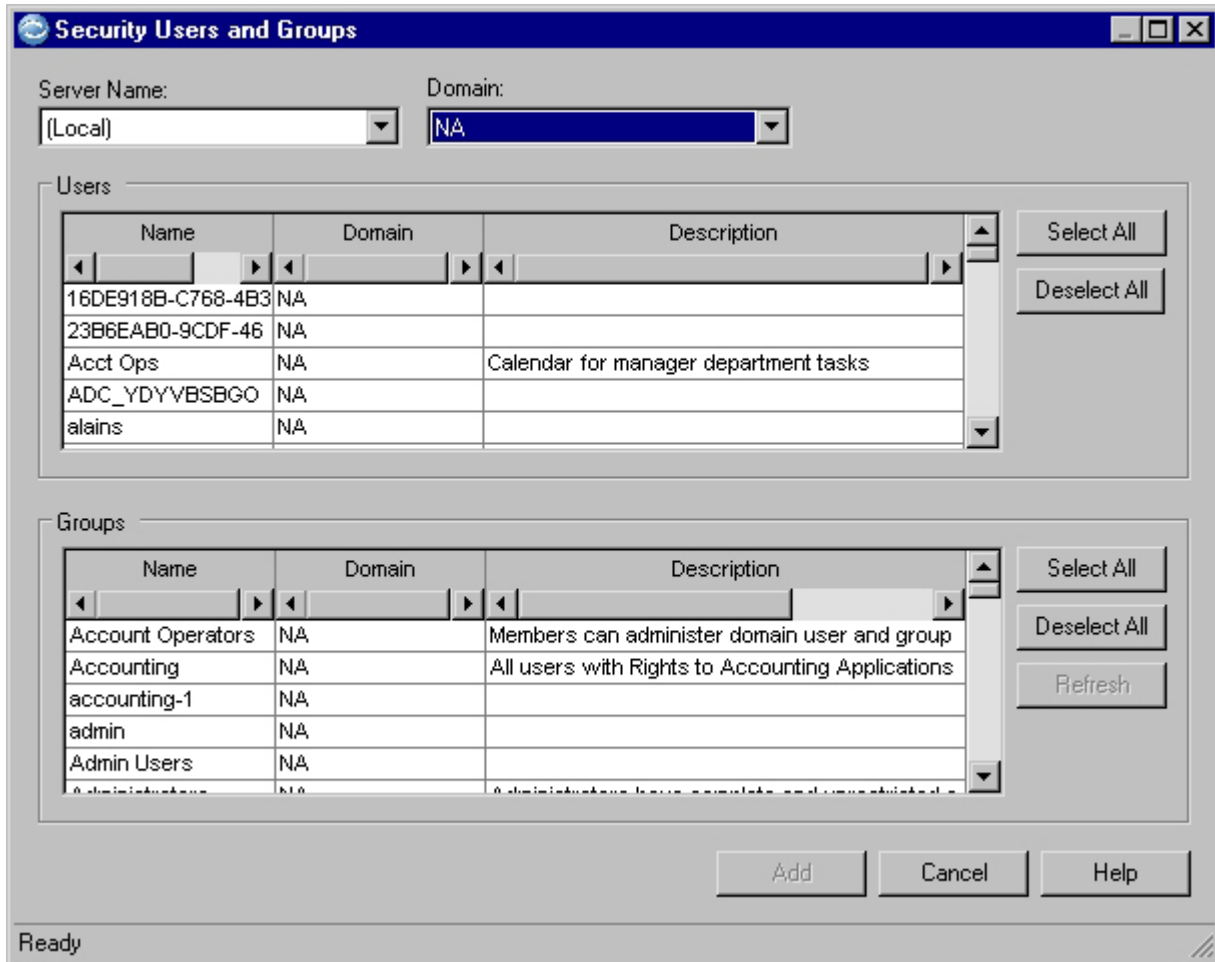
Remove all user and group accounts from the role.

Everyone Group

The Everyone group includes all users in all Windows domains and UNIX nodes in your network. This group is not available in the Security Users and Groups dialog. To add this group to a role, type Everyone in **User/Group**, leave **Domain** blank, and select the **Type** Group.

Security Users and Groups

When you select **Add Users/Groups** from the shortcut menu on the **Users** tab, the Security Users and Groups dialog is displayed. Use the Security Users and Groups dialog to select user and group accounts in a network domain.



Server Name

Select (Local) or the name of the Server with the domain connection appropriate for the account you want to add to the role. If your site does not use a Server, (Local) is displayed and cannot be changed.

Domain

Select the name of the domain for the user and group accounts you want to add to the role. The domains are within a network that includes the designated Server Name.

Note: If the Server is on a UNIX platform, you do not need to specify a Domain. The node name is displayed in **Domain** at the top of the dialog and in the **Users** and **Groups** grids.

Users

The user accounts in the domain, including the Name, Domain, and Description.

Groups

The group accounts in the domain, including the Name, Domain, and Description.

Shortcut Menu Command

Right-click the **Users** grid to display the following shortcut menu command:

Display Groups for User

Display only groups that include the selected user.

Command Buttons

The following command buttons are available on the Security Users and Groups dialog:

Select All

Select all members in the grid.

Deselect All

Clear all selections in the grid.

Refresh

Display all groups in the domain again.

Add Add the selected users and groups to the role and open the Role Specifications dialog.

Cancel

Return to the Role Specifications dialog without adding any users or groups to the role.

To list groups for a specific user, right-click the user name and select **Display Groups for User** from the shortcut menu. To display all group accounts in the domain again, click **Refresh**.

Select a single user or group account by clicking the name or select multiple user or group accounts by holding the Ctrl or Shift key while clicking the names. To select all accounts in a list, click **Select All**. To deselect all accounts in a list, click **Deselect All**. Click **Add** to add the selected accounts to the role and display the Role Specifications dialog again.

Privileges Tabs

Both the **Functional Privileges** tab and the **Object Association Privileges** tab are divided into two grids, one for privilege classes and the second for privileges that are included in the selected privilege class.

If **Allow All Functional and Object Association Privileges** (for the (Default) ACD) or **Allow All Object Association Privileges for this Role** is selected, the role is granted all privileges in all privilege classes. To grant or deny selected privileges to a role, you must clear this option.

Assigning Privileges

By selecting **Allow All** or **Deny All** for a privilege class, you select corresponding check boxes for the associated privileges.

For example, you can allow accounts in a role to secure action requests by selecting **Allow All** for the Associate Action Editors Privilege Class on the **Object Association Privileges** tab. Accounts in the role can then secure an action request with an ACL that uses the ACD.

Note: You can define Functional Privileges from the (Default) ACD only.

Privilege Classes Grid

Use the Privilege Classes grid to display associated privileges in the Privileges grid. You can also use the Privilege Classes grid to allow or deny all privileges in either a single class or all classes.

To select a row in the Privilege Classes grid, click a row indicator cell or either an **Allow All** or **Deny All** cell. The grid arrow, ➔, indicates the class of privileges displayed.

You can also allow or deny all privileges in all privilege classes using the **Allow All** and **Deny All** buttons for the Privilege Classes grid or selecting corresponding commands from the shortcut menu. To remove all selections in the Privilege Classes grid, click or select **Clear All**.

Privileges Grid

Use the Privileges grid to allow or deny privileges within a privilege class. You can allow or deny a privilege by selecting the corresponding **Allow** or **Deny** check box. If both the **Allow** and **Deny** check boxes are cleared, the role is denied the privilege.

You can also allow or deny all privileges in the class using the **Allow All** and **Deny All** buttons for the Privileges grid or selecting corresponding commands from the shortcut menu. To remove all selections in the Privileges grid, click **Clear All**.

Users in Multiple Roles

When a user is a member of more than one role, certain rules apply to avoid security conflicts.

- If a privilege is denied for a role, then the privilege is unavailable to all members of the role, even the members associated with another role in which the privilege is allowed.
- If neither the **Allow** nor **Deny** check box in a **Privilege** tab is selected, the privilege is denied, but members of the role may be allowed the privilege as members of another role that is allowed the privilege.

Functional Privileges Tab

Use the **Functional Privileges** tab on the Role Specifications dialog to assign Functional Privileges to roles in the (Default) ACD.

You can allow or deny access to Functional Privileges for any role in the (Default) Access Control Domain. Configure Functional Security using the **Functional Privileges** tab on the Role Specifications dialog. For additional information, see “Assigning Privileges” on page 396.

When a role is denied a Functional Privilege, any functions associated with the privilege are unavailable to the user and group accounts in the role. For example, if the privilege to invoke the Access Definition Editor privilege from the Invoke Definition Editors privilege class is denied to a role, the **Access Definition** option in the **Definitions** menu on the main window is unavailable to users in that role and, also, the **Edit Access Definition** button and menu option are unavailable from any request editor (for example, the Extract Request Editor).

The (Default) ACD governs Functional Privileges. Subordinate ACDs can determine Object Association Privileges only.

Important: Before Functional Security is first enabled, the Security Administrator must define Functional Privileges for all users. If Functional Privileges are not defined before Functional Security is enabled, users will be unable to access any functions in Optim.

Role Name: Description:

Access Control Domain: ☐ Allow All Functional and Object Association Privileges for this Role

Users | **Functional Privileges** | Object Association Privileges

Privilege Classes

	Functional Privilege Classes	Allow All	Deny All
→	Create New Actions	<input type="checkbox"/>	<input type="checkbox"/>
	Create New Definitions	<input type="checkbox"/>	<input type="checkbox"/>

Privileges

	Create New Actions Privileges	Allow	Deny
Archive Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Compare Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Convert Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

OK Cancel Help

Ready

The Functional Privileges, by privilege class, are described below.

Create New Actions

Create New Actions privileges are required to create or make copies of action requests (for example, an Archive Request). The **New** command and the ability to save a copy of a request in a respective request editor will be unavailable to roles that are denied a privilege.

(Local) privileges refer to requests that are created from another object editor. For example, if a role is denied the Insert Request (Local) privilege, the role will be unable to create a local Insert Request from the **Restore Request Editor**.

This class includes the following privileges:

- Archive Request
- Compare Request
- Convert Request
- Convert Request (Local)
- Delete Request
- Extract Request

- Insert Request
- Insert Request (Local)
- Load Request
- Load Request (Local)
- Report Request
- Report Request (Local)
- Restore Request
- Table Editor

Create New Definitions

Create New Definitions privileges are required to create or make copies of definitions (for example, an Access Definition). The **New** command and the ability to save a copy of a definition in a respective definition editor will be unavailable to roles that are denied a privilege.

(Local) privileges refer to definitions that are created from another object editor. For example, if a role is denied the Access Definition (Local) privilege, the role will be unable to create a local Access Definition from the Extract Request Editor.

This class includes the following privileges:

- Access Definition
- Access Definition (Local)
- Column Map
- Column Map (Local)
- Column Map Proc(edure)
- Column Map Proc (Local)
- Optim Primary Key
- Optim Relationship
- Table Map
- Table Map (Local)

Create Security Definitions

Create Security Definitions privileges are required to create or make copies of security definitions (for example, an Access Control Domain). The **New** command and the ability to save a copy of a security definition in a respective security definition editor will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Access Control Domain
- File Access Definition

Create Utility Definitions

Create Utility Definitions privileges are required to create or make copies of utility definitions (for example, a Storage Profile). The **New** command and the ability to save a copy of a utility definition in a respective utility editor will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Calendar
- Archive File Collection
- Currency
- Storage Profile

Editor Options

Editor Options privileges are required to create database objects (for example, create tables, drop tables, or modify SQL statements).

This class includes the following privileges:

Create Indexes During Primary Key Index Analysis

Create Indexes During Primary Key Index Analysis privilege is required to create new indexes from the Primary Key Index Analysis dialog.

Create Indexes During Relationship Index Analysis

Create Indexes During Relationship Index Analysis privilege is required to create new indexes from the Relationship Index Analysis dialog.

Create Tables During Create

Create Tables During Create privilege is required to create new tables during the Create Process.

Drop Tables During Create

Drop Tables During Create privilege is required to drop tables during the Create Process.

Modify SQL During Create

Modify SQL During Create privilege is required to modify SQL statements during the Create Process.

Modify SQL During Primary Key Index Analysis

Modify SQL During Primary Key Index Analysis privilege is required to modify SQL statements when creating indexes from the Primary Key Index Analysis dialog.

Modify SQL During Relationship Index Analysis

Modify SQL During Relationship Index Analysis privilege is required to modify SQL statements when creating indexes from the Relationship Index Analysis dialog.

File Maintenance

File Maintenance privileges are required to delete or rename files and directories.

This class includes the following privileges:

File Deletion

Delete a file or directory.

File Renaming

Rename a file or directory.

Invoke Action Editors

Invoke Action Editors privileges are required to create, edit, or run an action request (for example, Insert Request). The respective **Action** menu item will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

Archive Request

Compare Request

Convert Request

Delete Request

Extract Request

Insert Request

Load Request

Report Request

Restore Request

Table Editor

Invoke Command Line Actions

Invoke Command Line Actions (PROCMND) privileges are required to execute a utility from the command line.

This class includes the following privileges:

Archive Directory Maintenance

Invoke Archive Directory Maintenance privilege is required to register or unregister Archive Files or update Archive File entries from the command line (that is, use /ARCMANT).

Browse

Invoke Browse privilege is required to browse Archive Files, Compare Files, Extract Files, and Control Files from the command line (that is, use /X).

Import

Invoke Import privilege is required to import Optim objects from the command line (that is, use /IMPORT).

Migrate/FMF

Invoke Migrate/FMF (File Maintenance Facility) privilege is required to perform the Archive File Migration process (that is, use /MIGRATE) and the File Maintenance processes, Remove Rows and Compress (that is, use /FMF).

Restart/Retry

Invoke Restart/Retry privilege is required to restart or retry processes from the command line (that is, use /RESTARTRETRY).

Run

Invoke Run privilege is required to run processes from the command line (that is, use /R).

Table Editor

Invoke Table Editor privilege is required to edit tables from the command line (that is, use /E).

Invoke Configuration Actions

Invoke Configuration Actions privileges are required to perform tasks within the Configuration program (for example, Create/Update DB Alias). The respective **Tasks** menu item will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Apply Maintenance for DB Alias
- Create/Update DB Alias
- Drop Optim Directory/DB Alias
- Update DBMS Version for DB Alias

Invoke Definition Editors

Invoke Definition Editor privileges are required to create or edit an Optim object (for example, an Access Definition). The respective **Definitions** menu item will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Access Definition
- Column Map
- Column Map Proc(edure)
- DB Alias
- Point and Shoot
- Primary Key
- Relationship
- Table Map

Invoke Options

Invoke Options privileges are required to edit Product Options or use dialogs for securing Optim functions, objects, and Archive Files. The respective **Options** menu item will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Access Control Domain
- Export Security Definitions
- File Access Definition
- Import Security Definitions
- Product Options

Invoke Utilities

Invoke Utilities privileges are required to open the utilities dialogs. The respective **Utilities** menu item will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

Archive Directory Maintenance

Invoke Archive Directory Maintenance privilege is required for roles that maintain Archive Files or the Archive Directory.

Archive Index Maintenance

Invoke Archive Index Maintenance privilege is required for roles that maintain Archive Indexes.

Browse

Invoke Browse privilege is required for roles that browse Archive, Compare, Extract, or Control Files.

Calendar

Invoke Calendar privilege is required for roles that create or edit Calendars.

Create Invoke Create privilege is required for roles that create database objects, either online or from the command line.

Currency

Invoke Currency privilege is required for roles that create or edit Currency Definitions.

Export Invoke Export privilege is required for roles that export Optim objects.

Import

Invoke Import privilege is required for roles that import Optim objects.

Register Archive File

Invoke Register Archive File privilege is required for roles that register Archive Files, whether online or from the command line.

Restart/Retry

Invoke Restart/Retry privilege is required to restart or retry a process.

Scheduling Editor

Invoke Scheduling Editor privilege is required to schedule process requests.

Storage Profile

Invoke Storage Profile privilege is required to manage archive media.

Archive File Collection

Invoke Archive File Collection privilege is required for roles that create or edit Archive File Collections, used with Open Data Manager.

Run Untitled Actions

Run Untitled Actions privileges are required to process new action requests not saved prior to

processing (that is, requests for which Untitled is displayed in the dialog heading). The **Run** command in a respective action editor will be unavailable to roles that are denied a privilege.

This class includes the following privileges:

- Archive Request
- Compare Request
- Convert Request
- Delete Request
- Extract Request
- Insert Request
- Load Request
- Report Request
- Restore Request

Security Tasks

Security Tasks privileges are required to export or import secured Archive Files, modify a FAD, or run a Security Report.

This class includes the following privileges:

Export Secured Archive File

Export a secured Archive File.

Import Secured Archive File

Import a secured Archive File.

Modify File Security with Migrate

Use the Archive File Migration Process to change a FAD.

Report Security Privileges

Run a Security Report.

Object Association Privileges Tab

Use the **Object Association Privileges** tab to indicate the types of object for which the role will have Object Association Privileges. Object Association Privileges allow the role to use roles defined in the ACD as the basis for an ACL that protects objects of the indicated type.

Role Specifications

Role Name: Description:

Access Control Domain: ☐ Allow All Functional and Object Association Privileges for this Role

Users | **Functional Privileges** | Object Association Privileges

Privilege Classes

	Object Association	Allow All	Deny All	
→	Privilege Classes			
→	Associate Action Editors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Associate Definition Editors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Buttons: Allow All, Deny All, Clear All

Privileges

	Associate Action Editors Privileges	Allow	Deny	
Archive Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Compare Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Convert Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Buttons: Allow All, Deny All, Clear All

OK Cancel Help

Ready

For more information about working with privileges and privilege classes, see “Assigning Privileges” on page 396.

Associate Action Editors

Associate Action Editors privileges are required to associate the ACD with an ACL that secures an Action request, which is created in a editor selected from the **Actions** menu. For example, an Archive File Request.

This class includes the following privileges:

- Archive Request
- Compare Request
- Convert Request
- Delete Request
- Extract Request
- Insert Request
- Load Request
- Report Request

Restore Request
Table Editor

Associate Definition Editors

Associate Definition Editors privileges are required to associate the ACD with an ACL that secures a Definition, which is created in an editor selected from the **Definitions** menu. For example, an Access Definition Request.

This class includes the following privileges:

Access Definition
Column Map
Column Map Proc(edure)
DB Alias
Point and Shoot
Primary Key
Relationship
Table Map

Associate Utilities

Associate Utilities privileges are required to associate the ACD with an ACL that secures a Utilities object, which is created in an editor selected from the **Utilities** menu. For example, a Currency Definition Request.

This class includes the following privileges:

Calendar
Archive File Collection
Currency
Storage Profile

Access Control List

An Access Control List (ACL) governs the ability of a role to perform actions (such as read, update, or delete) on both an object and the associated ACL. Each Access Control Domain, File Access Definition, and secured Optim object has an ACL.

Note: ACLs for objects other than security definitions have no effect unless the Security Administrator has enabled Object Security.

When you secure an object, access to any associated Local objects is governed by the ACL for the parent object. Local objects are not secured individually; they are secured with the object in which they are embedded.

Use the Access Control List Editor to set access permissions for an object and the associated ACL. In general, an ACL is based upon a specific ACD, which defines the roles referenced by the ACL. Roles that are not in the ACD or not included in the ACL are denied all access to the object and ACL. However, the owner of the ACL always retains full access to the ACL, regardless of permissions granted or denied by the ACL.

Object Association Privileges

In order to create an ACL when Functional Security is enabled, a user must be a member of a role to which the ACD grants Object Association Privileges for the object type. Object Association Privileges are defined on the **Object Association Privileges** tab in the Role Specifications dialog. Use the tab to identify object types that the role can use with the ACD. For more information about defining Object Association Privileges, see “Object Association Privileges Tab” on page 403.

Automatically Associate an Object with an ACL

The ACL for a security definition (ACD or FAD) is created automatically at the time the definition is saved. ACLs for other objects may be created automatically, at the time the object is created and saved, or manually. Automatically created ACLs can be edited at any time by an authorized user.

The initial ACL for a security definition references an Optim Administrator role for the owner and grants full access to the ACL for that role. The initial ACL for other objects is modeled after the Optim Object Template ACL, if one was created at the time Optim Security was configured for your installation. If the Optim Object Template ACL does not exist or the owner of the object is not granted object association privilege for the ACD that forms the basis for the Template ACL, the owner (creator) of the object is prompted to define the required ACL.

Note: Only the Security Administrator can define the Optim Object Template ACL, using the Configuration Program or selecting the **Options** → **Security** menu option in the main window. See “Set Optim Object Security Option” on page 176 for further information.

Manually Associate an Object With an ACL

You can create an ACL manually by selecting the **Tools** → **Edit ACL** menu option in the object editor or the shortcut menu in the Open dialog to display the Access Control List Editor. You can also use these options to edit an ACL. Settings in the Optim Object Template ACL, if the Template ACL exists, are used to populate the Access Control List Editor. If there is no Optim Object Template ACL, the editor is blank.

Remove an ACL

You cannot delete the ACL for an object for which security is required. To delete an ACL, you must be the ACL owner or in a role that is allowed Delete permission for the ACL. To remove the ACL for an object, select the **Tools** → **Delete ACL** menu option in an object editor, or right-click the object name in the Open dialog and select **Delete ACL** from the shortcut menu. You can also click **Delete** on the Access Control List Editor.

Create or Edit an ACL

This section explains how to create or edit an Access Control List.

To create or edit an Access Control List:

1. In the object editor, select **Edit ACL** from the **Tools** menu to open the Access Control List Editor.
2. The next step depends on your purpose:
 - To change the ACD used as the basis for roles listed in the ACL, select a name from the **Access Control Domain** drop-down list.
 - To select an existing ACL to use as a model for the ACL displayed in the Access Control List Editor, click the **Model After** button to display the Select Access Control List Model dialog.
 - To list a Role, select a role name from the Role drop-down list in the grid.
 - To allow or deny access to the object or associated ACL, select the appropriate check boxes.
3. Click **OK** to save the ACL and redisplay the object editor.

These steps are the minimum required to create or edit an ACL. For complete details, refer to “Access Control List Editor” on page 407.

Access Control List Editor

Use the Access Control List Editor to define access permissions for an object and the associated ACL.

	Role	Access Type	Object Access				ACL Access		
			Read	Update	Delete	Execute	Read	Update	Delete
1	Tech Writers	Allow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Deny	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Administrator	Allow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Deny	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3									

Note: Access permissions in the ACL determine the options and actions that are available to you. For example, the **Remove** shortcut menu options are not available to roles limited to read access.

Description

Enter text that describes the ACL (up to 40 characters).

Owner

The user account with all access rights to the ACL. The owner can always read, update, or delete the ACL even if the account is included in a role that is denied access to these actions. To change the owner, click **Change Owner**.

Note: The Security Administrator is the owner of the (Default) ACL and Optim Object Template ACL.

Access Control Domain

The ACD that forms the basis for the roles in the ACL. An ACL references roles in the ACD in order to translate them into network accounts. Roles not defined in the ACD, or in the ACD but not referenced in the ACL, are denied access.

Object Type

The type of object secured by the ACL.

ACL Grid

The grid allows you to list roles in the ACL and define permissions.

Role Enter a role name or select from the drop-down list of roles in the ACD. Role names not included in the ACD are italicized.

Notes:

- If the ACD does not include any roles, the **Role** list is not available.
- A role that is not defined in the ACD is denied all access.
- A user or group account that is not included in a listed role is denied all access.
- The most restrictive permission applies to a user or group account that is included in multiple roles in the ACL.

Access Type

Allow and **Deny** identify the check boxes in their rows. If both the **Allow** and **Deny** check boxes are cleared, accounts in the role are provisionally denied the privilege but may be granted the privilege as members of another role.

Object Access

Possible access to the object. Use each set of **Allow** and **Deny** check boxes to define access permissions for the role.

Read Controls the ability to open or view an object. If access is denied, a warning popup indicates the object is restricted by security.

A role must have Read access, in addition to Update access, to the object in order to update the object.

Update

Controls the ability to save an object. If access is denied, the **Save** command will not be available from the object editor.

Note: Roles denied update access can use the **Save As** command to rename an object.

Delete Controls the ability to delete an object. If access is denied, the **Delete** command is not available from the object editor and the Open dialog.

Execute

Controls the ability to run a process. This option is available only for objects created with editors listed in the **Actions** menu. If access is denied, the **Run** command is not available from the Request Editor and the **Execute** command is not available from the Table Editor.

ACL Access

Possible access to the ACL. Use each set of **Allow** and **Deny** check boxes to define access permissions for the role. If both the **Allow** and **Deny** check boxes are cleared, accounts in the role are provisionally denied the privilege but may be granted the privilege as members of another role.

Read Controls the ability to view the ACL. A role must have Read access, in addition to Update access, to the ACL in order to update the ACL.

Update

Controls the ability to modify the ACL.

Delete Controls the ability to delete the ACL. Not available for ACDs or File Access Definitions or for Optim objects that are secured automatically when saved.

Shortcut Menu Commands

Right-click the grid to display the following shortcut menu commands:

Remove

Remove the selected role from the ACL.

Remove All

Remove all roles from the ACL.

Allow All

Allow all Object Access, ACL Access, or both to the role.

Deny All

Deny all Object Access, ACL Access, or both to the role.

Clear All Allowed

For the role, clear all **Allow** check boxes for Object Access, ACL Access, or both.

Clear All Denied

For the role, clear all **Deny** check boxes for Object Access, ACL Access, or both.

Right-click the grid column for an action to display the following shortcut menu commands:

Allow All *action* Access

Allow access to all roles for the selected action.

Clear All *action* Access

Clear all **Allow** and **Deny** check boxes for all roles for the selected action.

Deny All *action* Access

Deny access to all roles for the selected action.

Command Buttons

The following command buttons are available on the Access Control List Editor:

Change Owner

Open the Security Users dialog to assign ACL ownership to another user account. Available to user accounts permitted to update the ACL who are also the ACL owner or the Security Administrator for the Optim Directory. For more information about this dialog, see "Security Users."

Note: **Change Owner** is not available for the (Default) ACL and the Optim Object Template ACL.

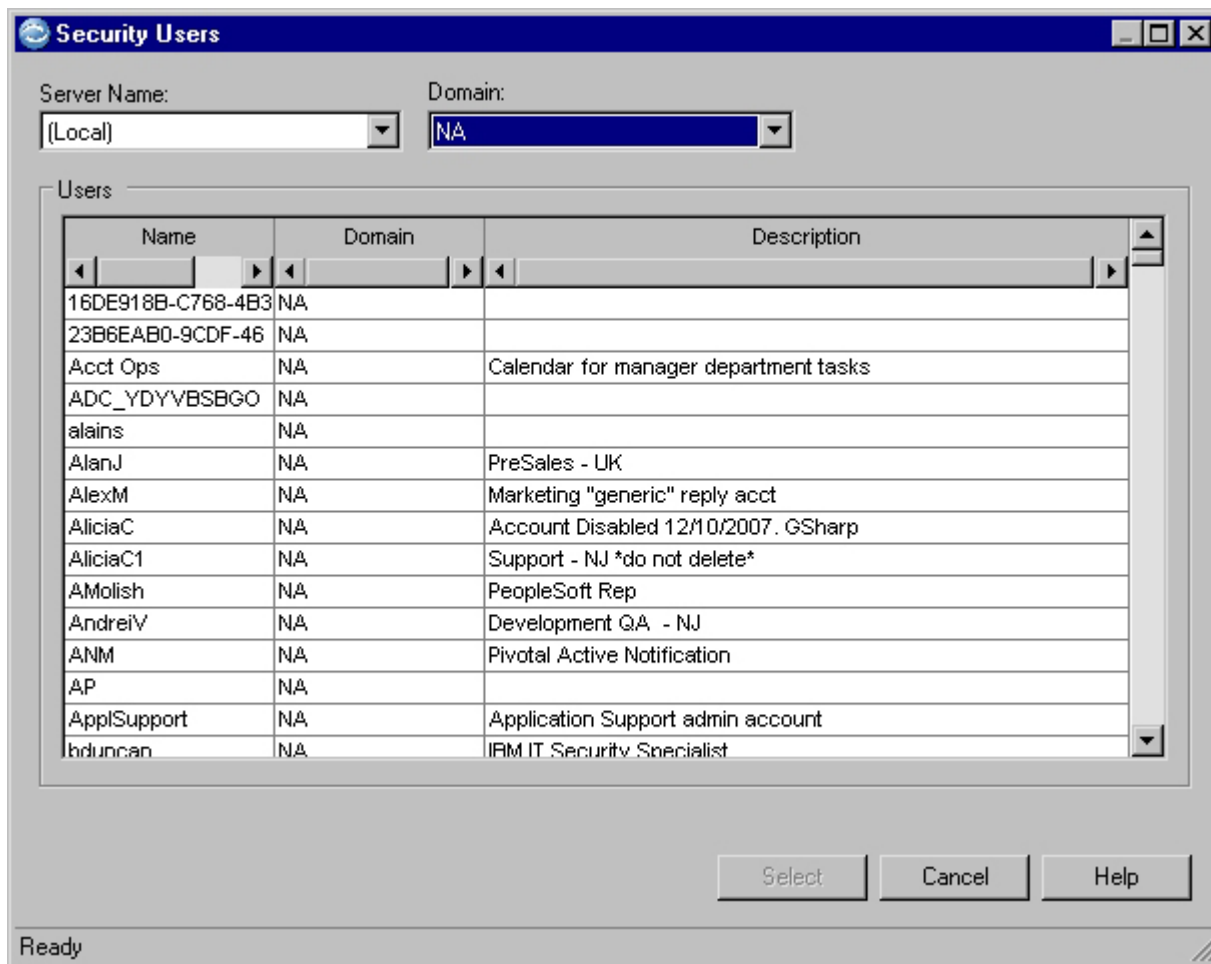
Model After

Open the Select Access Control List Model dialog to model the ACL after another ACL. Available to roles permitted to update the ACL. For more information about this dialog, see "Select Access Control List Model" on page 410.

Security Users

Click **Change Owner** to open the Security Users dialog, used to reassign ACL ownership. Use this dialog to select a user account from a list of accounts in a specified network domain.

To display the list, select an **Optim Server Name** and a **Domain**. To select a network user account, click the name in the **Users** grid, and click **Select**.



Server Name

Select the name of a Server. If your site does not use a Server, (Local) is displayed.

Domain

Select the name of the domain for the users you want to list. The domain is within a network that includes the server in **Server Name**.

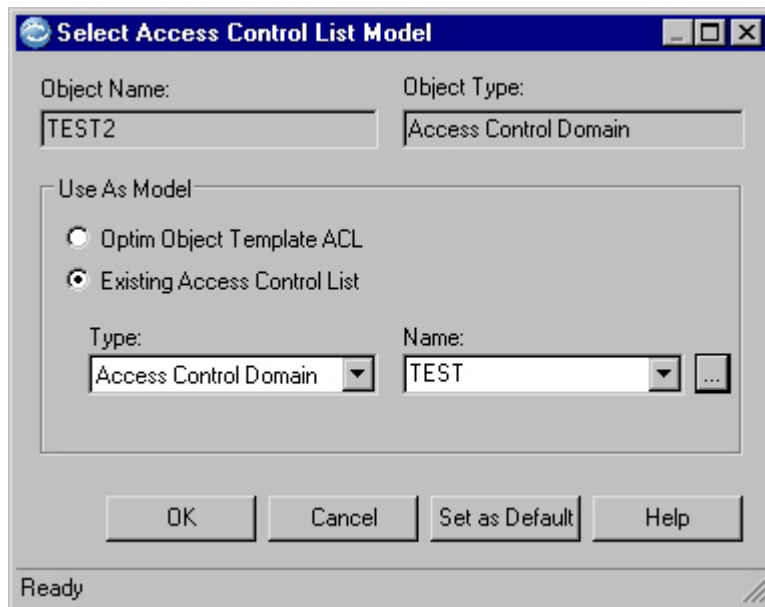
Note: If a UNIX server is selected, the node name is displayed in **Domain** and in the **Users** grid.

Users

A list of user accounts by Name, with Domain and a Description.

Select Access Control List Model

To model an ACL after the ACL for another security definition or Optim object, click **Model After** to open the Select Access Control List Model dialog.



To select an ACL as a model, enter the object type and name. To apply the ACL for the selected object as a model, click **OK**. The roles and permissions from the model are then displayed in the Access Control List Editor.

Object Name

Name of the object with the model ACL.

Object Type

Type of object with the model ACL.

Use As Model

Select an ACL to use as a model, using the following:

Optim Object Template ACL

Option to use the Optim Object Template ACL as the model.

Existing Access Control List

Option to use the ACL as the model type and name.

Type Select the object type associated with the model ACL.

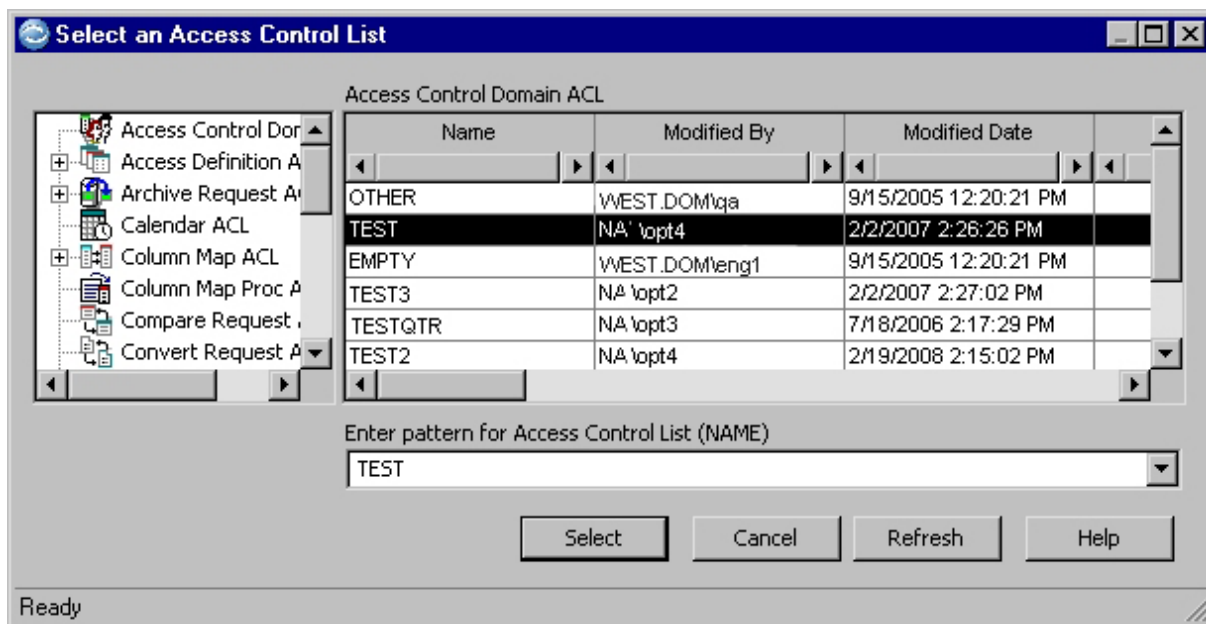
Name Type or select the object name associated with the model ACL.

You can also use the **Name** browse button to open the Select an Access Control List dialog, used to select a model ACL from a list of objects. If you select an ACL using the Select an Access Control List dialog, the Type and Name for the selected ACL will be displayed automatically.

To populate **Type** and **Name** with the current entries each time you open the Select Access Control List Model dialog, click **Set as Default**.

Select an Access Control List

Use the Select an Access Control List dialog to select a model ACL from a list of objects. The **Identifier** area displays the object types to list on the right side of the dialog.



After you select an Identifier, ACLs are listed on the right side, below the type of object. Double-click the desired ACL to select it as a model.

Note: An ACL is identified by the name of its associated object.

Enter Pattern for Access Control List allows you to limit the ACL list to names that match the specified criteria. You can use the % (percent) wild card to represent one or more characters, or use the _ (underscore) wild card to represent a single character. (The underscore must be selected as the SQL LIKE character on the **General** tab of Personal Options.) After you specify a Pattern, click **Refresh** to display the list again based on your criteria.

File Access Definition

Use a File Access Definition to control access to data in one or more Archive Files created by running an Archive Request that references the FAD. The archived data is protected according to the settings in the FAD, which can be changed as the security requirements for your site change. When settings in the FAD are changed, the changes apply to the previously archived data as well as to data archived in the future.

A File Access Definition allows you to control access to data in specified tables and columns, or use a default setting to control access to tables and columns for which access is not granted explicitly. You can define access permissions by creating an access list for a table, column, or the default. All users are allowed unlimited access to archived data to which an access list does not apply. File Access Definition specifications for tables and columns that do not exist in an associated Archive File do not affect the security of the file.

Only roles in the Access Control Domain (ACD) used as the basis for the File Access Definition can be assigned explicit permissions. Any user accounts for which explicit permissions do not apply are allowed or denied access according to a default setting for the File Access Definition.

For example, you can grant access to roles in the ACD explicitly and use the default setting to deny access to all other users. For a detailed File Access Definition example, see “File Access Definition Example” on page 421.

Permissions Needed to Create an FAD

To create an FAD, a user account must be a member of a role allowed the Create File Access Definition privilege in the (Default) ACD. If Functional Security is not enabled, a user account must be a member of a role with update access to the ACL for the (Default) ACD.

Using Secured Archive Files

You can limit the ability of roles to process or view archived data at the level of table or column. For a Restore Process, members of a role can insert or update from a table and column in a secured Archive File, if permitted. If the account is not permitted to access a column that affects the referential integrity of the data, e.g., a primary key, an error message is displayed in the Process Report.

For a Delete Process, only an account that is permitted access to data in a table and column in a secured Archive File can delete database data from that table and column. If an account is not permitted to access a column that affects the referential integrity of the data, e.g., a primary key, an error message is displayed in the Process Report.

For a Browse session, an account must be permitted access to data in a table and column in a secured Archive File in order to browse the data.

Accounts that are denied access to data in all tables or columns in a secured Archive File cannot use the file in any Archive process or Browse session. A message indicates that the file cannot be opened. If an Archive File is associated with a File Access Definition that does not exist, the file cannot be used to define or run a process.

Registering Secured Archive Files

A secured Archive File must have an accompanying Security File in order to be registered. Using the Archive Directory Maintenance dialog, you can export the security information for an Archive File into a Security File. The Security File protects the Archive File by requiring a password to register the Archive File.

During registration, the secured Archive File is associated with a new or existing File Access Definition in the target Optim Directory. For more information about registering Archive Files and the Archive Directory Maintenance dialog, refer to the *Archive User Manual*.

Use the File Access Definition Editor to create and maintain File Access Definitions. You can open the ACL for a File Access Definition from this dialog or from the File Access Definitions dialog.

Create or Edit a FAD

This section explains how to create or edit a File Access Definition.

To create or edit a File Access Definition:

1. In the main window, select the **Options** → **Security** → **File Access Definitions** menu option to open the File Access Definitions dialog.
2. The next step depends on your purpose:
 - To create a new FAD, select **New FAD** from the **Tools** menu in the File Access Definitions dialog to open the File Access Definition Editor.
 - To edit an existing FAD, double-click the grid row to display the desired FAD in the File Access Definition Editor.
3. The next step depends on your purpose:
 - To change the ACD used as the basis for roles listed in a new FAD, select a name from the **Access Control Domain** drop-down list.

- To edit the **Table List** or list columns for explicit permissions, use the shortcut menu.
- To list a Role, select a role name from the **Role** drop-down list in the Table Access Control grid.
- To allow or deny access to the table or column, select the appropriate check boxes.

4. Click **OK** to save the FAD.

These steps are the minimum required to create or edit an FAD. For complete details, refer to “File Access Definition Editor.”

File Access Definition Editor

Use the File Access Definition Editor to define a File Access Definition. This dialog allows you to select an Access Control Domain to be used as the basis for the File Access Definition, select tables to secure using the **Table List**, and define access permissions for each selected table using the **Table Access Control** list. You can also define access permissions for columns in a listed table.

Open the File Access Definition Editor by selecting the **Tools** → **New FAD** menu option in the File Access Definitions dialog. You can also open that Editor for an existing File Access Definition by double-clicking a listing in the File Access Definitions dialog.

(Untitled) - File Access Definition Editor

File Edit Tools Options Help

Description:

Access Control Domain: (Default)

Table List:

	→	Table	AC Type	Column Secure
1		(Default)	Default	<input type="checkbox"/>
2	→	DBMS.OPTUSR.ADDRESS	Explicit	<input type="checkbox"/>
3		DBMS.OPTUSR.FIRSTNAME	None	<input type="checkbox"/>
4		DBMS.OPTUSR.LASTNAME	None	<input type="checkbox"/>
5				

Table Access Control:

	Role	Access Allow	Access Deny
1	(Default)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Tech Writers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			

Ready

Description

Enter text that describes the File Access Definition.

Access Control Domain

Type or select the name of an Access Control Domain (ACD) to use as the basis for the File Access Definition. The ACD translates the roles specified in the **Table Access Control** list into accounts in your network. After a File Access Definition is saved, you can select a different ACD by modifying the associated ACL.

Table List

(Default) and names of tables for which the File Access Definition explicitly controls access. Select an entry in the list to display or define corresponding access permissions in the **Table Access Control** list. The (Default) setting applies to archived data in tables not otherwise listed and cannot be deleted.



Identifies the active entry; to select an entry, click the arrow.

Table The fully qualified table name. You cannot save a File Access Definition if any table name is not fully qualified.

Type the fully qualified three-part name, or use **Add Table** from the shortcut menu to select a table name from a database or an Archive File. To remove a table name, select the row number and press **Delete** or use the **Remove** commands in the shortcut menu.

Any security settings for tables or columns that are not in the secured Archive File have no effect.

AC Type

The type of access permissions associated with the table. Access permissions are displayed in the **Table Access Control** list. Select one of the following:

Explicit

Table-specific access permissions apply.

Default

The access permissions for (Default) apply.

None Access permissions do not apply. All users are allowed to access the table.

Notes: If AC Type is None:

- The **Column Secured** check box and **Table Access Control** list are unavailable and any user account is allowed full access.
- If for (Default), the Default AC Type is unavailable for other entries in the **Table List**.

Column Secured

Indicator that access permissions are defined for one or more columns in the table.

To define access permissions for columns, right-click the table entry and select **List Columns** from the shortcut menu. Column access permissions are defined in the Table Access Control dialog. **Column Secured** indicates a table with column access permissions defined.

Shortcut Menu Commands

Right-click a row in the **Table List** to display the following shortcut menu commands:

Remove Table

Remove the table name from the list. This command is not available for (Default).

Remove All Tables

Remove all table names, except (Default), from the list.

List Columns

Open the Table Access Control dialog to define access permissions for columns in the selected table. This command is not available for (Default).

Add table

Display submenus and select a source, **From Database** or **From Archive File**, for a table selection list. Use the list to add one or more table names to the **Table List**.

Note: **Add table** is available only from the blank row at the bottom of the **Table List**.

Select **From Database** to display the Select Table(s) dialog listing tables in the database. For more information, see “Selecting Tables from a Database.”

Select **From Archive File** to display the Open dialog, from which to choose an Archive File before displaying the File Access Definition Table/Column Selection dialog. For more information, see “Selecting Tables from an Archive File” on page 417.

Note: Access permissions in the ACL for the FAD determine the options and actions that are available to you. For example, the **Remove** shortcut menu options are not available to a role that is limited to read access.

Table Access Control

Use the **Table Access Control** list to define access permissions for an entry in the **Table List**. You can assign access permissions to selected roles in the associated ACD and a default for all user accounts and roles for which access permissions are not assigned explicitly. If the AC Type for an entry in the **Table List** is None, **Table Access Control** list is blank and cannot be edited.

Role (Default) and names of roles for which the File Access Definition explicitly controls access. Role names not included in the Access Control Domain that serves as the basis for the FAD are italicized and settings for them have no effect.

Notes:

- If a user is included in multiple roles in the list, the most restrictive permission applies.
- Unless the AC Type for the Table List entry is None, the **Table Access Control** list includes a (Default) setting. This default cannot be deleted and applies to users for which no explicit permissions are granted.

Type the name or use the drop-down list to select the name of a role defined in the ACD. You can also edit a role name. To remove a role name, use the **Remove** commands in the shortcut menu.

Access

The type of access permissions for the role. Select one of the following:

Allow The role is allowed access to the table.

Deny The role is denied access to the table.

You must select either **Allow** or **Deny** for (Default). Roles for which both **Allow** and **Deny** are blank assume the permission selected for (Default).

Shortcut Menu Commands

Right-click the **Table Access Control** list to display the following shortcut menu commands:

Remove

Remove the role from the list. This command is not available for (Default).

Remove All

Remove all roles, except (Default), from the list.

Allow all non-default

Allow access for all listed roles, except (Default).

Deny all non-default

Deny access for all listed roles, except (Default).

Selecting Tables from a Database

Use the Select Table(s) dialog to select the names of one or more tables from a database referenced by a specified DB Alias. To open the Select Table(s) dialog, right-click the blank row at the bottom of the Table

List, select **Add table** from the shortcut menu, and select **From Database** from the submenu. You can then select one or more table names to be added to the **Table List**.

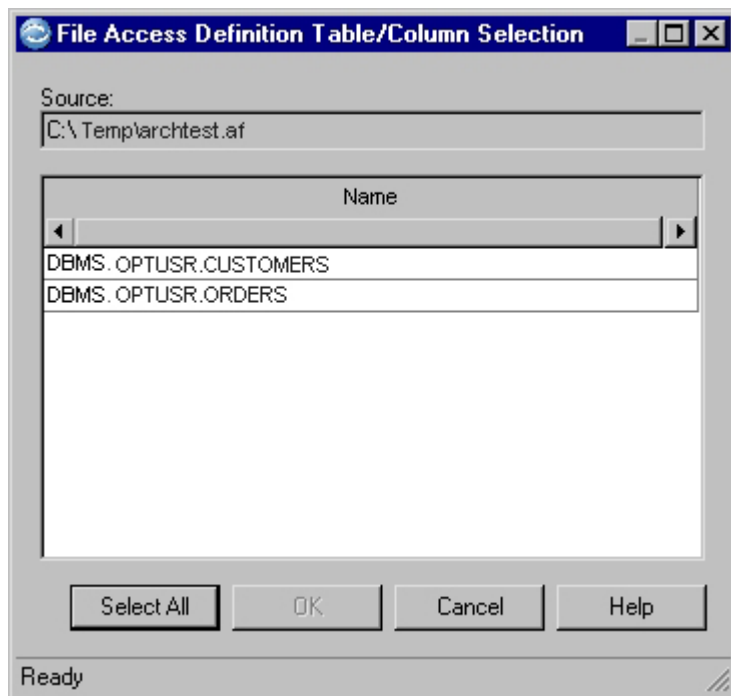
The Select Table(s) dialog lists the database tables:

- DB Aliases for available databases are listed on the left. To list tables in a database, double-click the DB Alias or overtype the DB Alias in the **Pattern** box.
- Objects referenced by the selected DB Alias are listed in the **Database Table** grid in alphabetical order by Creator ID and Table Name. The type of object (table, view, alias, synonym), DBMS, and fully qualified name are provided.

Selecting Tables from an Archive File

When you select **Add table** from the **Table List** shortcut menu, and select **From Archive File** from the submenu, the Open dialog is displayed to allow you to select an Archive File.

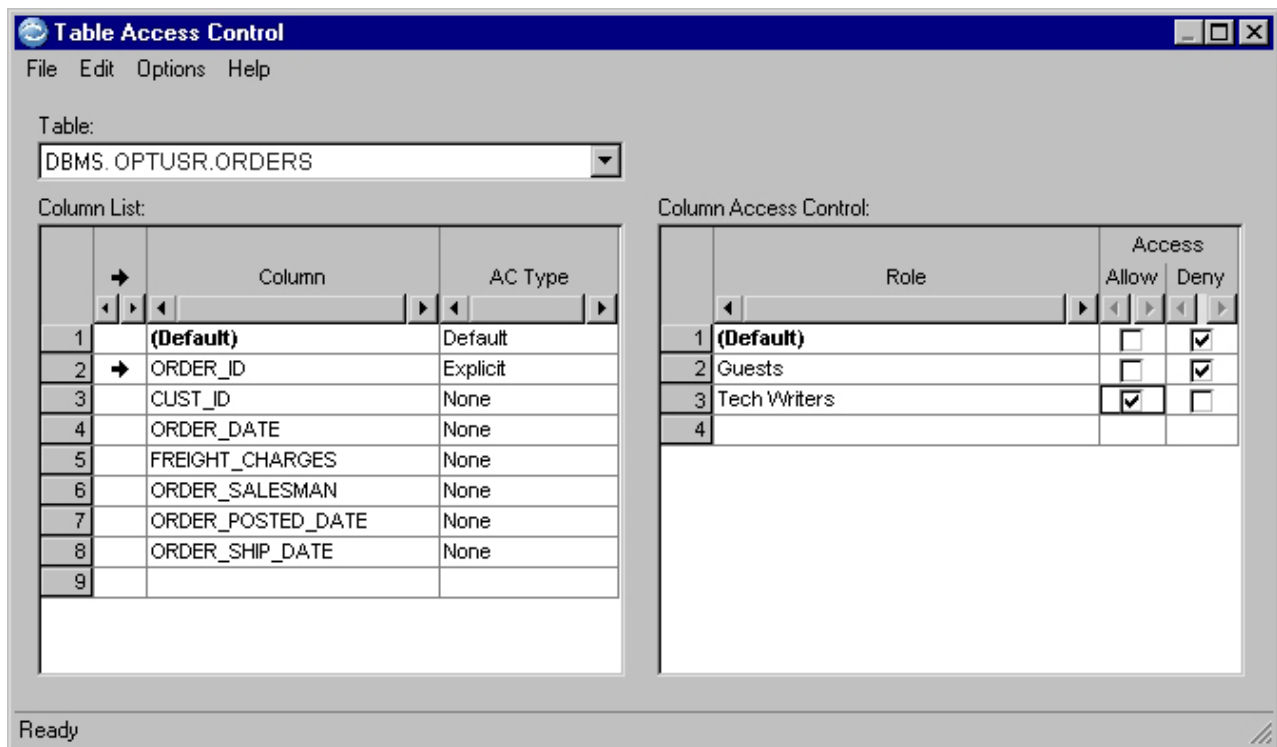
In the Open dialog, select the server on which the file resides and click **Refresh**. Use **Look In** to select the directory or path containing the file, and then double-click a listed file name or enter the file name and click **Open**. The names of tables in the selected file are listed in the File Access Definition Table/Column Selection dialog. **Source** indicates the path for the file.



Use the File Access Definition Table/Column Selection dialog to select the names of one or more tables in the Archive File. Click a table name to select it. To select multiple tables, hold the Ctrl or Shift key while clicking the table names. To select names of all tables in the Archive File, click **Select All**. Click **OK** to add the selected names to the **Table List** and display the File Access Definition Editor again.

Defining Access Permissions for Columns

Permissions for columns are defined using a method similar to that for tables. To define access permissions for one or more columns in a table, right-click the table name in the File Access Definition Editor **Table List** and select **List Columns** from the shortcut menu. The Table Access Control dialog is displayed.



Table

The table for which column access permissions are defined. Use **Table** to select other names from the **Table List** in the Access Definition Editor and define column access permissions.

Column List

(Default) and names of columns in the table for which the File Access Definition explicitly controls access. Select an entry in the list to display or define corresponding access permissions in the **Column Access Control** list. The (Default) setting applies to archived data in columns not otherwise listed and cannot be deleted.



The arrow indicates the active entry. To select an entry, click the row.

Column

The column name. Type the name, or use **Add column** from the shortcut menu to select a column name from a database or an Archive File. To remove a column name, select the row number and press **Delete** or use the **Remove** commands in the shortcut menu.

Any security settings for tables or columns that are not in the secured Archive File have no effect.

AC Type

The type of access permissions associated with the column. Access permissions are displayed in the **Column Access Control** list.

Select one of the following:

Explicit

Column-specific access permissions apply.

Default

The default access permissions apply.

None Access permissions do not apply. All users are allowed to access the table.

Notes: If **AC Type** is **None**,

- The **Column Access Control** list is unavailable and any user account is allowed full access.
- If for (Default), the Default AC Type is unavailable for other entries in the **Column List**.

Shortcut Menu Commands

Right-click a row in **Column List** to display the following shortcut menu commands:

Remove Column

Remove the selected column name from the list. (This command is not available for (Default).)

Remove All Columns

Remove all column names, except (Default), from the list.

Add column

Display submenus and select a source, **From Database table** or **From Archive File**, for a column selection list. Use the list to add one or more column names to the **Column List**.

Note: **Add column** is available only from the blank row at the bottom of the **Column List**.

Select **From Database table** to display the File Access Definition Table/Column Selection dialog listing columns in the database table. For more information, see “Selecting Columns from a Table” on page 420.

Select **From table in Archive File** to display the Open dialog, from which to choose an Archive File before displaying the File Access Definition Table/Column Selection dialog. For more information, see “Selecting Columns from a Table in an Archive File” on page 421.

Note: Access permissions in the associated ACL determine the options and actions that are available to you. For example, the **Remove** shortcut menu options are not available to roles limited to read access.

Column Access Control

Use the **Column Access Control** list to define access permissions for the entry in the **Column List**. You can assign access permissions to roles in the ACD and a default for all user accounts and roles for which access permissions are not assigned explicitly. If the AC Type for an entry in the **Column List** is **None**, **Column Access Control** list is blank and cannot be edited.

Role (Default) and names of roles for which the File Access Definition explicitly controls access. Role names not included in the Access Control Domain that serves as the basis for the FAD are italicized and settings for them have no effect.

Notes:

- If a user is included in multiple roles in the list, the most restrictive permission applies.
- Unless the AC Type for the Column List entry is **None**, the **Column Access Control** list includes a (Default) setting. This default cannot be deleted and applies to users for which no explicit permissions are granted.

Type the name or use the drop-down list to select the name of a role defined in the ACD. You can also edit a role name. To remove a role name, use the **Remove** commands in the shortcut menu.

Access

The type of access permissions for the role. Select one of the following:

Allow The role is allowed access to the column.

Deny The role is denied access to the column.

Note: If a role is denied access to any file attachment pseudocolumn in an Archive File, the role cannot use the Archive File in a Delete, Restore, Update, or Insert process.

Shortcut Menu Commands

Right-click the **Column Access Control** list to display the following shortcut menu commands:

Remove

Remove the selected role from the list. (This command is not available for (Default).)

Remove All

Remove all roles, except (Default), from the list.

Allow all non-default

Allow access for all listed roles, except (Default).

Deny all non-default

Deny access for all listed roles, except (Default).

Selecting Columns from a Table

Use the File Access Definition Table/Column Selection dialog to select and add one or more names of columns from the table specified in the Table Access Control dialog to the **Column List**. **Source** displays the fully qualified table name.

To open this dialog, right-click the blank row at the bottom of the **Column List** and do one of the following:

- Select **Add column** from the shortcut menu and then select **From Database table** from the submenu.
- Select **Add column** from the shortcut menu and then select **From table in Archive File** from the submenu to first specify an Archive File containing the table.



Click a column name to select it. To select multiple columns, hold the Ctrl or Shift key while clicking the column names. To select all columns in the table, click **Select All**. Click **OK** to add the names of selected columns to the **Column List** and display the Table Access Control dialog again.

Selecting Columns from a Table in an Archive File

When you select **Add table** from the **Column List** shortcut menu, and select **From table in an Archive File** from the submenu, the Open dialog is displayed to allow you to select an Archive File.

In the Open dialog, select the server on which the file resides and click **Refresh**. Use **Look In** to select the directory or path containing the file, and double-click a listed file name or enter the file name and click **Open**. The names of columns in the selected table are listed in the File Access Definition Table/Column Selection dialog. **Source** indicates the fully qualified name of the table.

Note: The selected Archive File must contain a table with a fully qualified name that matches the name in **Table** on the Table Access Control dialog.

File Access Definition Example

The following example File Access Definition includes three types of access: a default, a restricted table (CUSTOMERS), and a restricted column (ORDERS.ORDER_ID). The roles specified in the example are part of the PSTUSER Access Control Domain (ACD). The ACD validates the roles and associates them with users in your network.

Default Access

For the first entry on the **Table List**, (Default), all roles and users, except the Guest role, are allowed to access tables in the Archive File that are not listed in **Table List**.

OPTUSR.FIRST - File Access Definition Editor

File Edit Tools Options Help

Description:

Access Control Domain: TEST2

Table List:

	Table	AC Type	Column Secure
1	(Default)	Default	<input type="checkbox"/>
2	DBMS.OPTUSR.CUSTOMERS	Explicit	<input type="checkbox"/>
3	DBMS.OPTUSR.ORDERS	Default	<input checked="" type="checkbox"/>
4			

Table Access Control:

	Role	Allow	Deny
1	(Default)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Guests	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3			

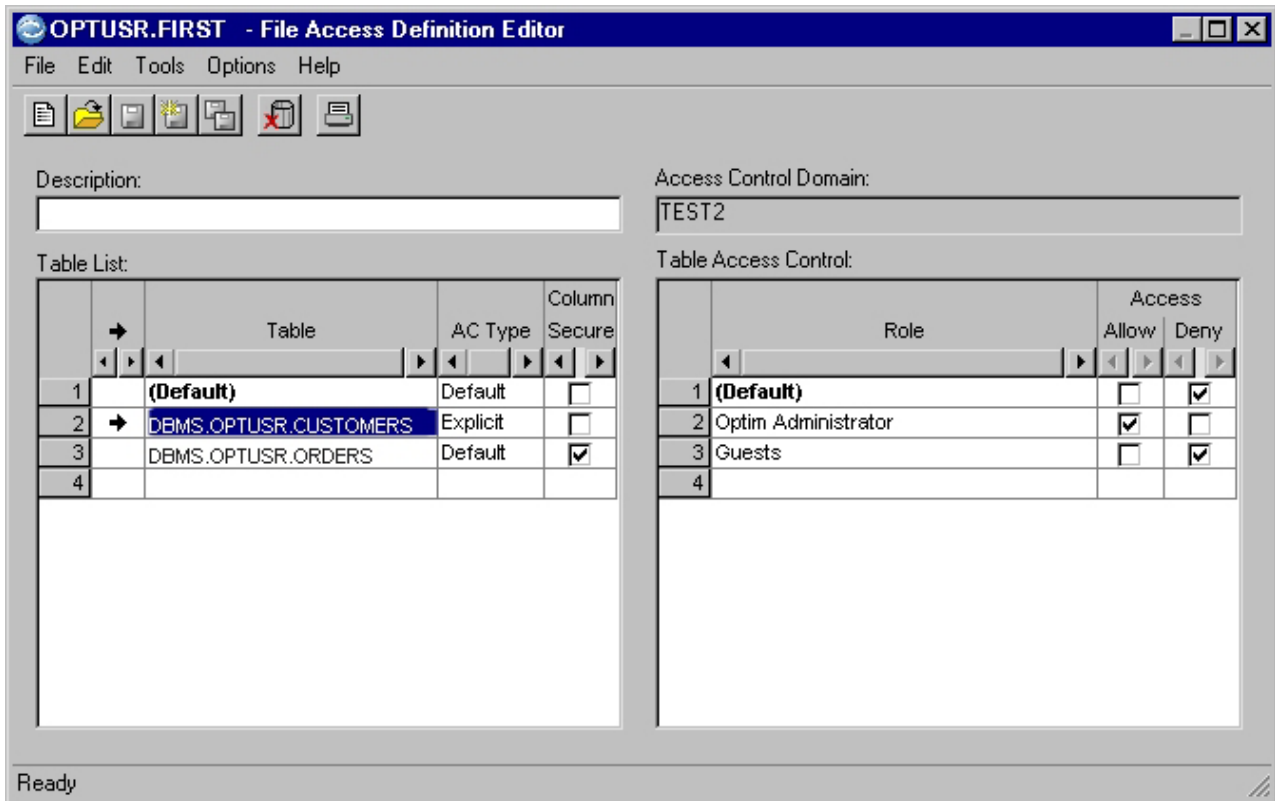
Ready

- In the **Table List**, the (Default) setting, for tables not listed, uses the Default AC Type. The Default AC Type assigns access permissions to the (Default) setting and any other tables that use Default.

- In the **Table Access Control** list, the (Default) setting, for users not included in the ACD and roles not specified in the list, is assigned Allow access. The Guest role is assigned Deny access.

Restricted Table

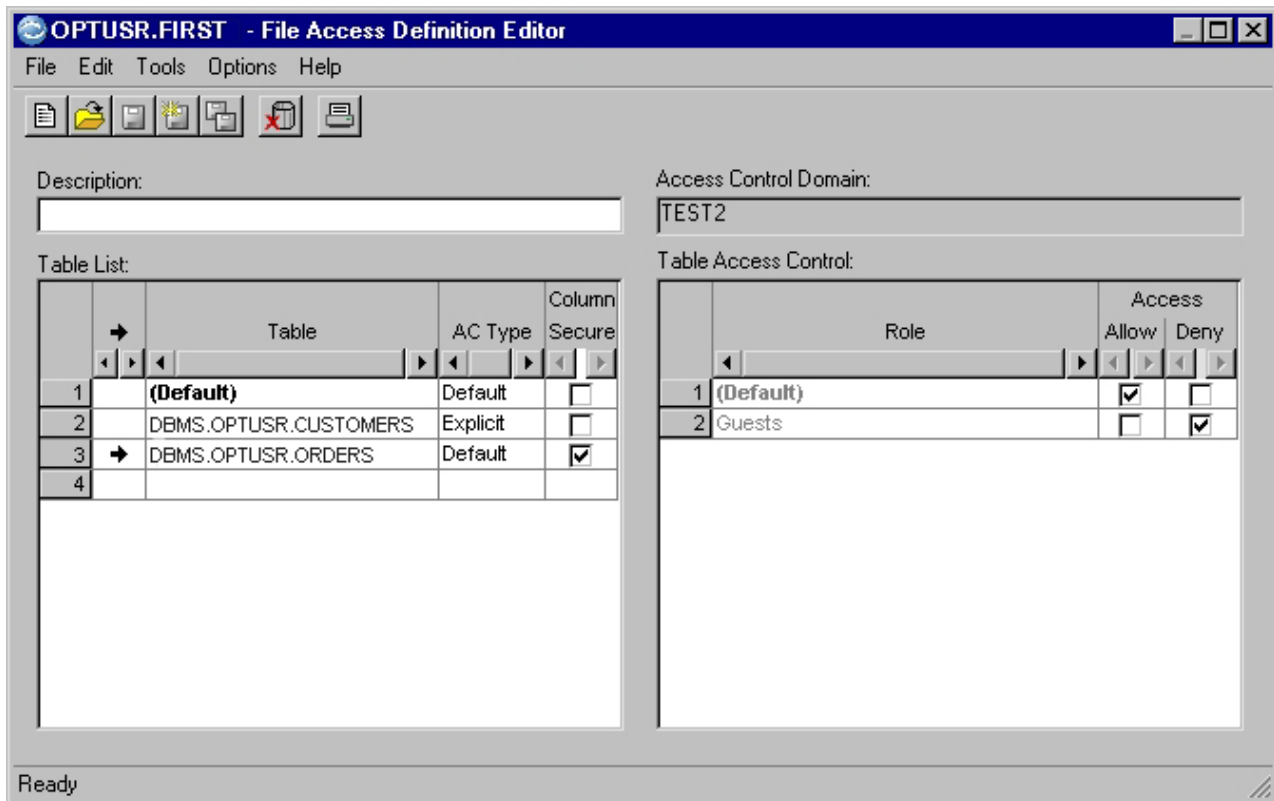
For the CUSTOMERS table, only the Optim Administrator role is allowed access. All other users and roles are denied access.



- In the **Table List**, the AC Type for CUSTOMERS is Explicit. The access permissions apply to this table only.
- In the **Table Access Control** list, the Optim Administrator role is assigned Allow access, and the (Default) setting, representing users not included in the ACD and roles not specified in the list, is assigned Deny access.

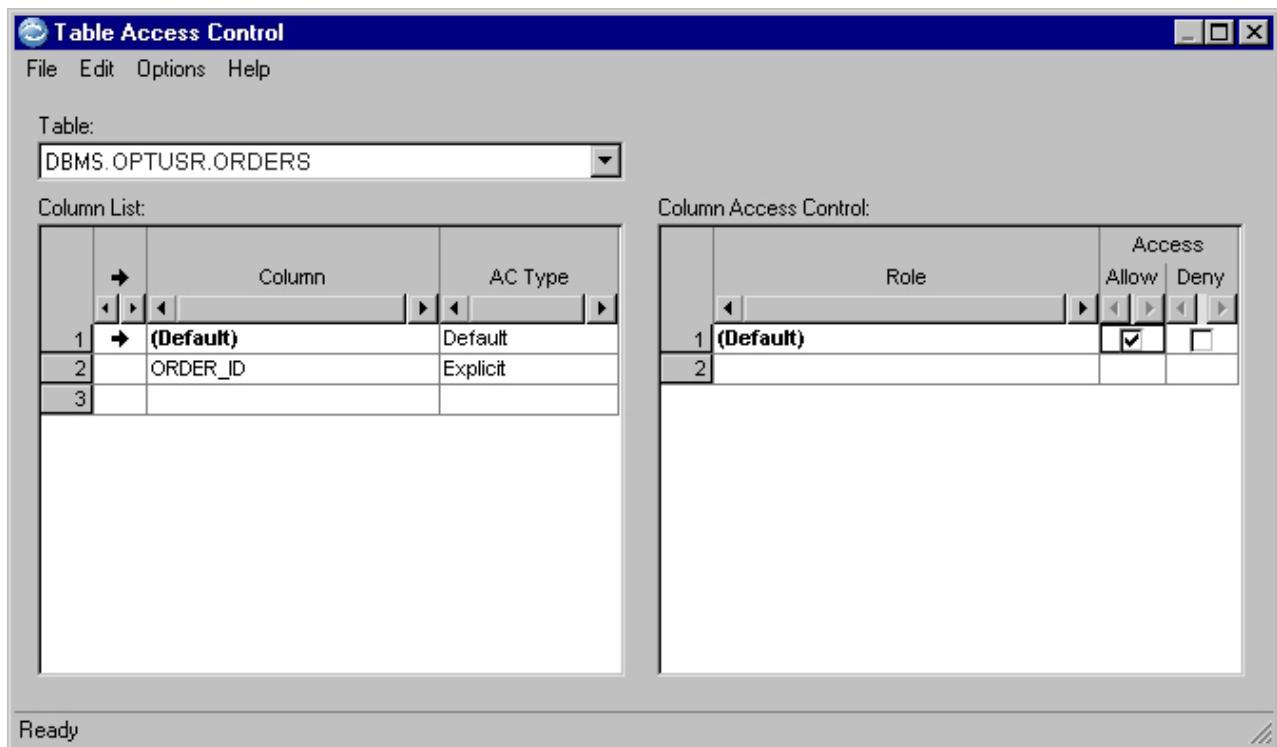
Restricted Column

For the ORDERS table, all users, except the Guest role, are allowed access, but one or more columns have separate access permissions, as indicated by **Column Secured** setting.

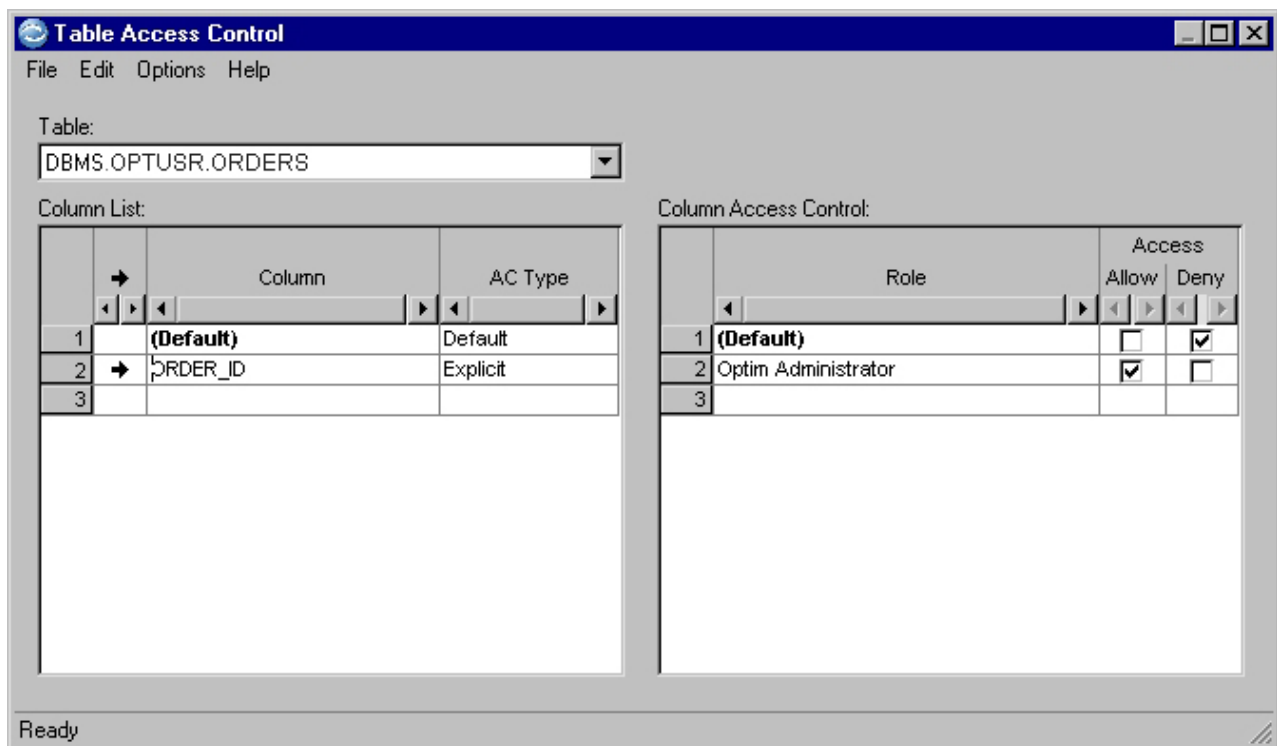


- The AC Type for the ORDERS table is Default, which for this File Access Definition allows access to all users and roles except the Guest role.
- The **Column Secured** setting indicates that one or more columns in the table have defined access permissions. To view a list of the secured columns, right-click the ORDERS row and select **List Columns**.

As shown by the Table Access Control dialog, the Default AC Type grants all users Allow access. All users that can access the table are allowed to access columns not specified in the **Column List**.



However, only the Optim Administrator role can access the ORDER_ID column. All other users and roles are denied access.



- In the **Column List**, the AC Type for ORDER_ID is Explicit. The access permissions apply to this column only.

- In the **Column Access Control** list, the Optim Administrator role is assigned Allow access, and the (Default) setting, representing users not included in the ACD and roles not specified in the list, is assigned Deny access.

Exporting Security Definitions

Use the Export Security Definitions Utility to export security definitions (ACDs, ACLs, and FADs) from one Optim Directory to another. The Export Security Definitions Utility eliminates the need to recreate security definitions manually and allows you to use the same definitions with the imported objects they secure.

Export Security Definitions

This section describes how to export security definitions.

To export security definitions:

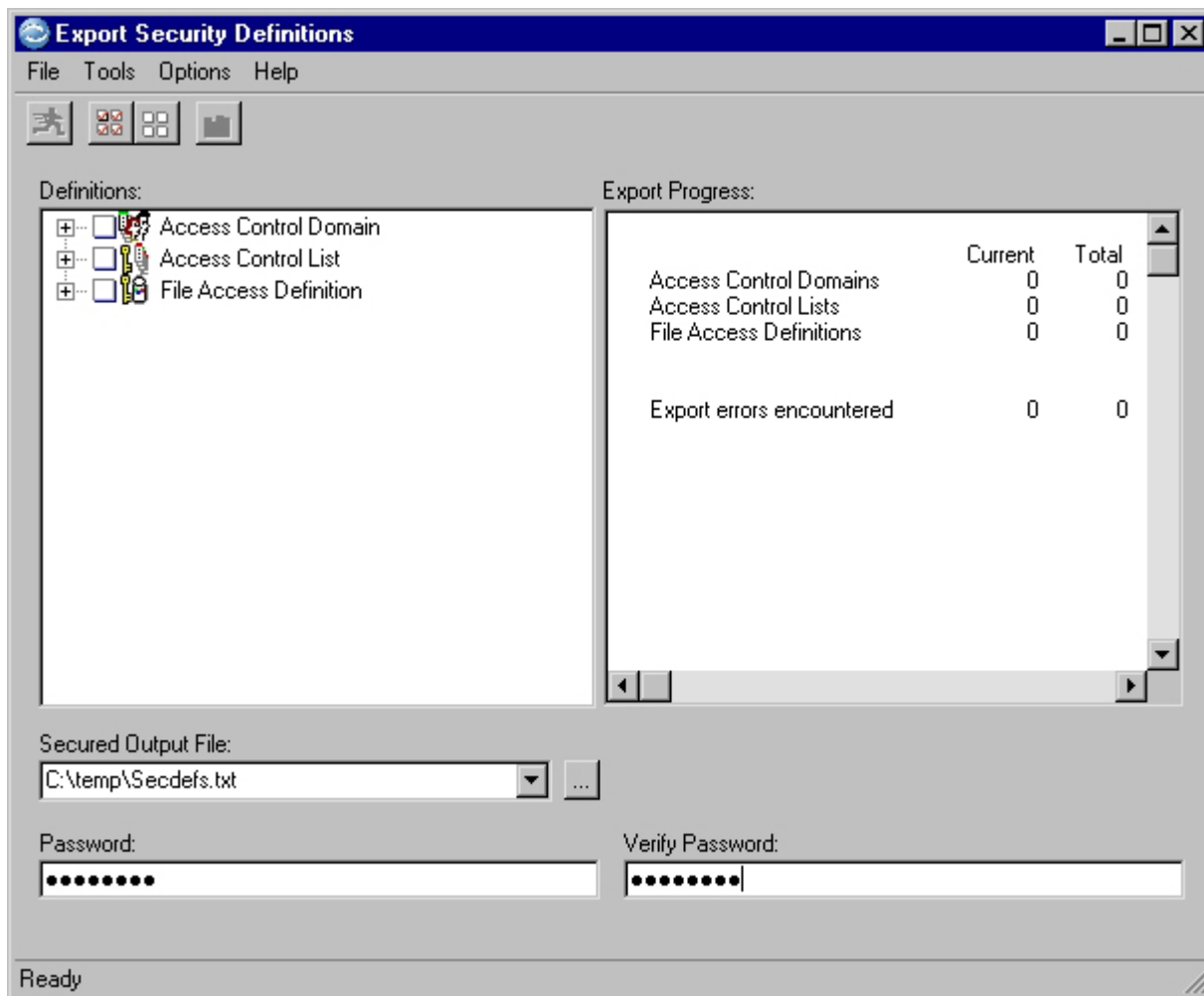
1. In the main window, select the **Options** → **Security** → **Export...** menu option to open the Export Security Definitions dialog.
2. In **Definitions**, select the security definitions to export.
3. Enter a Secured Output File name.
4. Type a Secured Output File Password.
5. Type the password again in **Verify Password**.
6. Choose **Run** from the **File** menu.
7. Monitor progress in the Export Progress pane.
8. When Security Definition Export processing is finished, choose **Show Process Log** from the **Tools** menu to review or print the Security Export Process Log.

Export Security Definitions Dialog

When you open the Export Security Definitions dialog, the tree hierarchy on the Definitions pane is populated with the security definitions in the Optim Directory to which you have read access.

Notes:

- ACLs that secure ACDs and FADs are not listed but will be exported with these definitions.
- The (Default) ACD is not listed and cannot be exported.



You can select the check box for a security definition type in order to export all definitions of that type or expand the list and select the definitions to be exported. **Tools** menu commands allow you to select or deselect all definitions.

Secured Output File

The name of the Secured Output File. The Secured Output File is a text file and is given a .txt extension automatically, but other extensions may be used. The Secured Output File is used as the Secured Input File for Security Definition Import processing.

Password

Password for securing the Secured Output File. This password must be entered when using the file with the Security Definition Import Process.

Verify Password

Enter the Password again for verification.

Tools Menu

The following commands are available from the **Tools** menu.

Select All Definitions

Select check boxes for all listed security definitions. This command is especially useful when you want to export all or most definitions.

Deselect All Definitions

Clear the check boxes for all listed security definitions, including shaded and/or selected check boxes.

Show Process Log

Display the Security Export Process Log generated by the last execution of Security Definition Export.

Run Export

To export security definitions, choose the **File** → **Run** menu option.

Note: The **Run** command will not be available until you have specified security definitions for export, a Secured Output File, and a password.

During Security Definition Export processing, the **Export Progress** pane displays the number of security definitions of each type that are exported and the number of errors encountered.

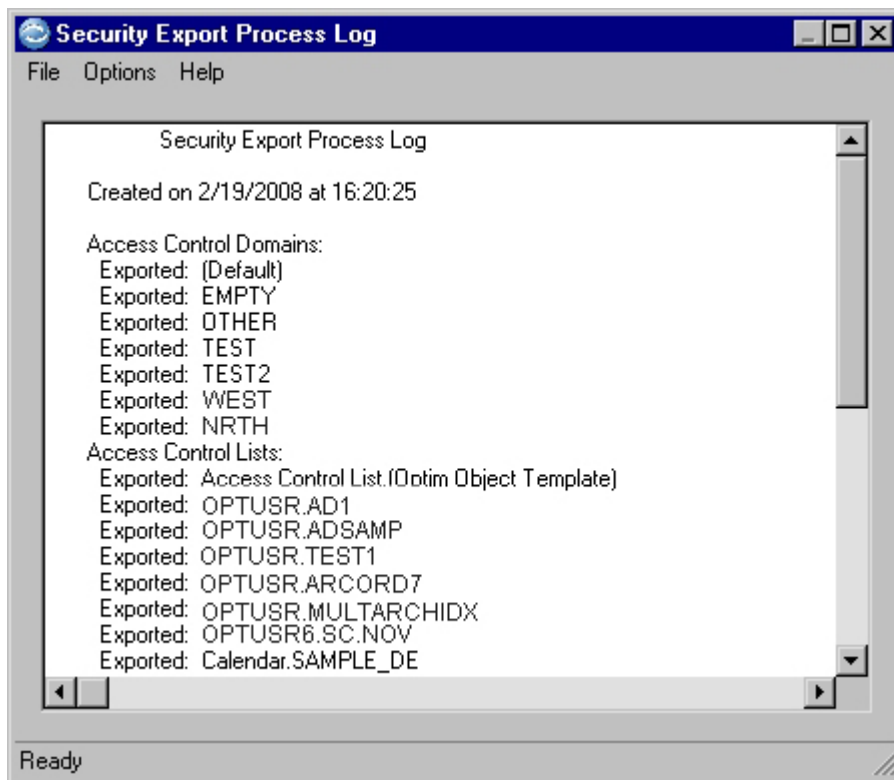
The status bar displays information about the current security definition that is processed. When Security Definition Export processing is finished, the status bar displays the message "Ready."

Export Errors

If errors occur during Security Definition Export processing (for example, a dropped definition is selected for export), an error message is displayed. Definitions for which processing errors occur are also represented visually by a red "X". Errors and diagnostic information are written to the Security Export Process Log.

Security Export Process Log

When the Security Definition Export is complete, select the **Tools** → **Show Process Log** menu option to display the Security Export Process Log.



This log displays the following details:

Creation Date

Date and time the Security Export Process Log was created.

List of errors

Explanatory text for each error if errors were encountered.

List of exported objects

Names of the exported security definitions, grouped by object type.

Print

Print the log by choosing the **File** → **Print** menu option. Each execution of Security Definition Export clears the log file before information for the current execution is written. Previous log information is not retained.

Import Security Definitions

The Import Security Definitions Utility copies security definitions from a Secured Input File to the current Optim Directory. (A Secured Output File generated by Security Definition Export is used as the Secured Input File.)

Importing Security Definitions

This section describes how to import security definitions.

To import security definitions:

1. In the main window, select the **Options** → **Security** → **Import...** menu option to open the Import Security Definitions dialog.
2. Specify a Secured Input File name. The Import Security Definition Validation pop-up is displayed.

3. Type the Password for the Secured Input File and click **OK**.
4. Select options on the **Process**, **Owners**, and **Objects** tabs.
5. Choose the **File** → **Run** menu option.
6. Monitor progress in **Import Progress**.
7. Choose the **Tools** → **Show Process Log** menu option to review or print the Import Process Log.

Import Dialog

The Import Security Definitions dialog has three tabs. Each tab and menu command available on the dialog serves a unique purpose.

Process

Identify the Secured Input File, select security definitions you want to import, and provide parameters for Security Definition Import processing.

Owners

Change the owner of ACLs you want to import.

Objects

Designate names for the imported security definitions.

File Menu

Set as Default

Save your entries on the Import Security Definitions dialog as the default specifications. The settings for the following options on the **Process** tab are saved:

- Allow ACL for nonexistent Optim objects
- Overwrite existing definitions
- Continue import if error(s)

Tools Menu

The following commands are available from the **Tools** menu.

Select All Definitions

Select check boxes for all listed security definitions. This command is especially useful when you want to import all or most security definitions.

Deselect All Definitions

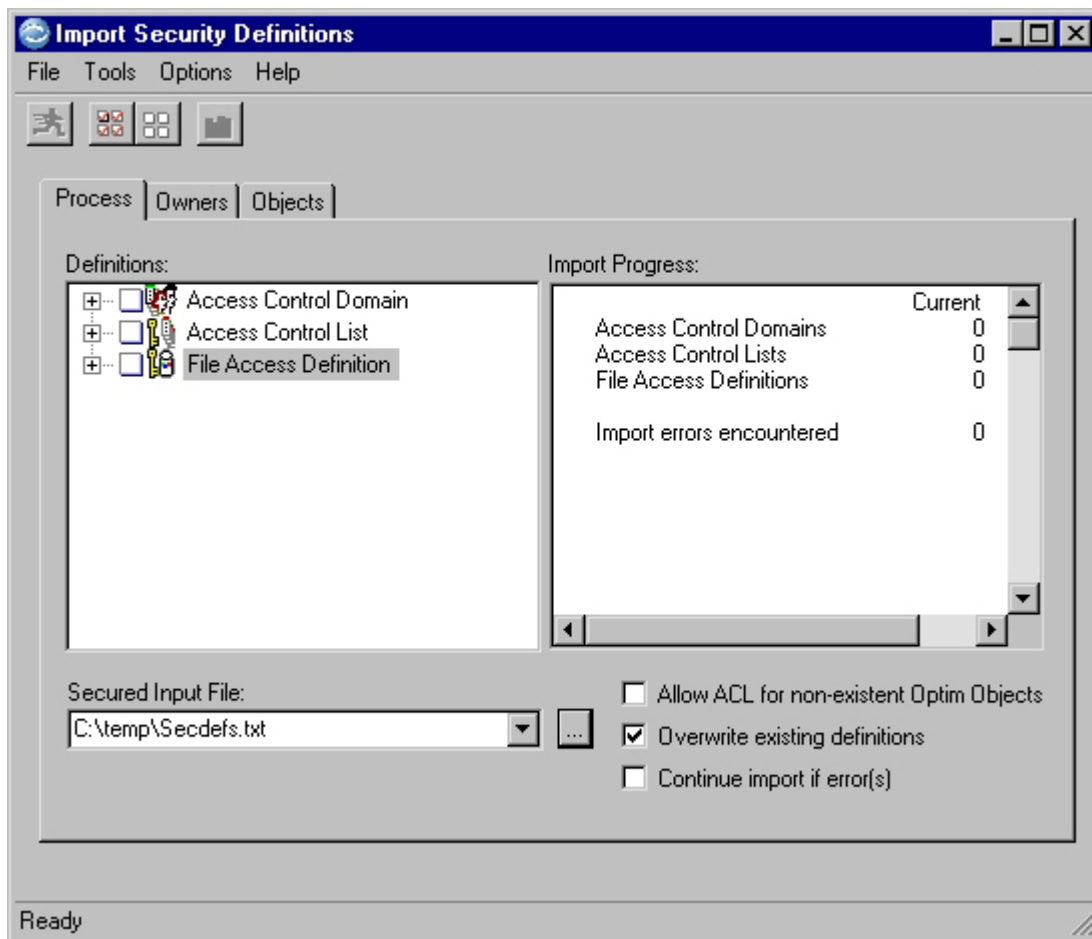
Clear the check boxes for all listed security definitions, including shaded and/or selected check boxes.

Show Process Log

Display the Security Import Process Log generated by the last execution of Security Definition Import.

Process Tab

Use the **Process** tab to identify the Secured Input File, select security definitions for import, and provide parameters for Security Definition Import processing. The tab is populated with defaults you have specified.



Definitions

The Import Security Definitions Utility populates the list of security definitions by:

- Identifying the security definitions in the Secured Input File. If there are no definitions of a specific type (e.g., no FADs), the check box for the definition type is shaded. Otherwise, you can expand the list of definitions of the type by clicking the plus (+) sign.
- Scanning the Optim Directory and identifying the security definitions in the Secured Input File that exist in the Directory. The check box to the left of each listed definition is selected or not according to the **Overwrite existing definitions** setting.
 - If **Overwrite existing definitions** is not selected, the check boxes to the left of definitions that exist in the current Optim Directory are shaded and selected and are unavailable for Import.
 - If **Overwrite existing definitions** is selected, all check boxes to the left of each security definition are cleared and any definition can be selected. If a selected definition exists in the Optim Directory, Security Definition Import overwrites it.

Note: At least one available security definition must be selected to run the Security Definition Import Process.

Import Progress

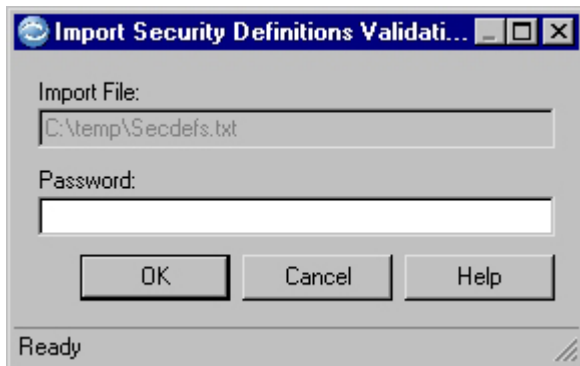
Statistics detail the current and total number of security definitions imported (by definition type) and the current and total number of errors encountered (the “total” numbers are the composite counts for all Security Definition Import Processes performed in the session). This display is updated during processing. The status bar displays information about the definition being processed.

Secured Input File

Specify a Secured Input File generated by the Security Definition Export Process (for details about creating this file, refer to “Exporting Security Definitions” on page 425).

- To select from a list of recent file names, click the down arrow or use the browse button. You may also copy a name into the box or type a name directly.
- If you do not provide a fully qualified path, the path from Personal Options is used.
- If no path is given in Personal Options, the current drive and directory are assumed.

After a Secured Input File is specified, the Import Security Definitions Validation pop-up is displayed. Type the Password and click **OK** to access the file.



Allow ACL for non-existent Optim Objects

Indicate if ACLs can be imported without having corresponding secured objects in the Optim Directory. Importing ACLs before corresponding secured objects allows the objects to be secured when they are imported. If secured objects are imported before the corresponding ACLs, the objects are unsecured until the ACLs are imported.

If a corresponding secured object is never imported, the Optim Directory will contain ACLs that do not secure an object (orphan ACLs). If an object is created with a name that matches an orphan ACL, that ACL will be associated with the object.

- To import ACLs for secured objects that do not exist in the Optim Directory, select this check box.
- To prevent importing ACLs for secured objects that do not exist in the Optim Directory, clear the check box.

Overwrite existing definitions

Indicate the action taken when the name of an imported security definition matches a definition already in the current Optim Directory:

- To overwrite existing definitions in the Directory and select any or all security definitions for import, select the check box.
- To prevent overwriting security definitions, clear the check box. Duplicate definitions, indicated by check boxes that are shaded and selected, are not imported.

Continue import if error(s)

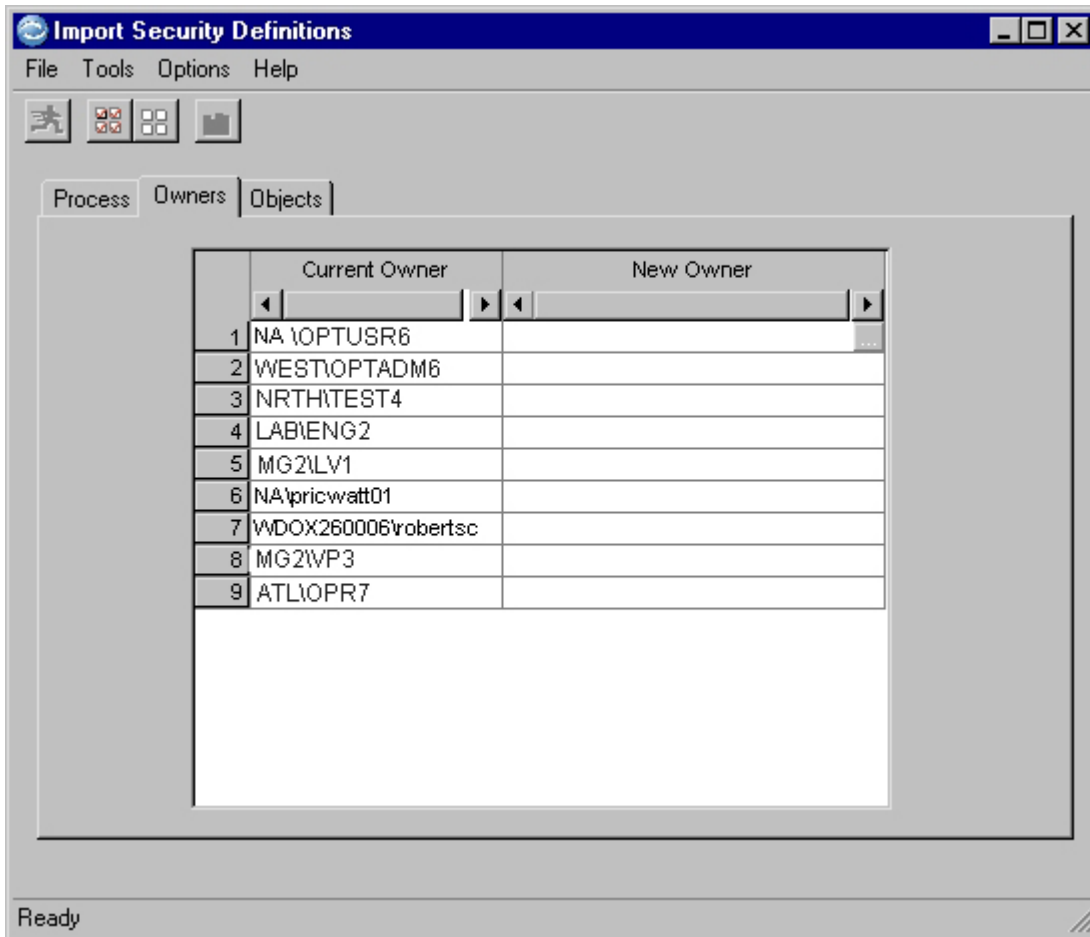
Indicate processing if an error occurs. Errors are written to the Security Import Process Log and displayed on the message bar.

- To continue processing if an error occurs, select the check box.

- To halt processing if an error occurs, clear the check box.

Owners Tab

Use the **Owners** tab to review or change the owner name of ACLs you want to import.



Current Owner

A read-only list of the owners of each ACL in the Secured Input File.

New Owner

Specify a new owner name for an ACL in the Secured Input File. Use the browse button to open the Security Users dialog and select an owner (see “Security Users” on page 409).

Shortcut Menu Commands

Right-click to select from the following shortcut menu commands:

Copy Name

Copies the Current Owner name to the New Owner column for the ACL. Available in the Current Owner column only.

Populate

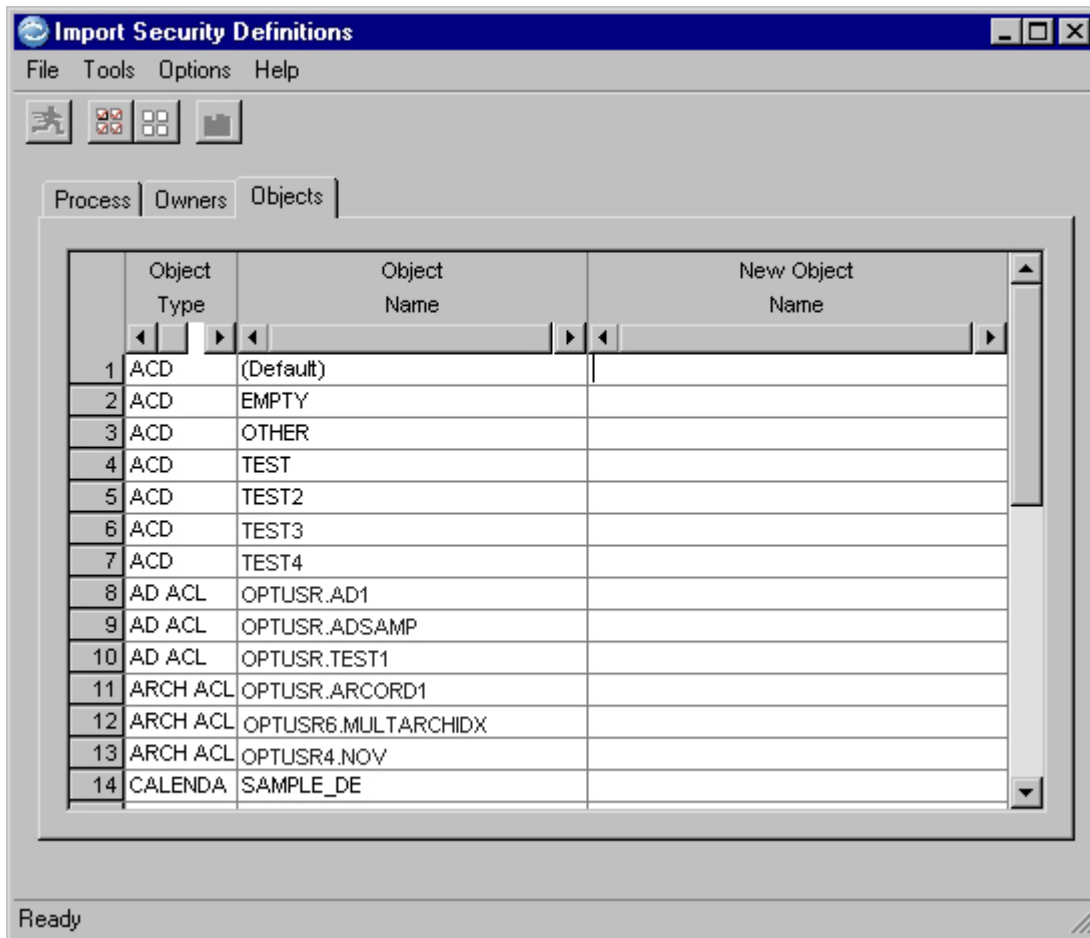
Clear Copies the Current Owner name to the New Owner column for all ACLs.

Add Copies the Current Owner name to the New Owner column for ACLs without a New Owner name.

Empty Empties names from the New Owner column for all ACLs.

Objects Tab

Use the **Objects** tab to review or change the names of security definitions you want to import.



Object Type

Identifies the security definition as an ACD, ACL, or FAD. For ACLs, the following abbreviations identify the secured object types:

AD Access Definition

ARCH
Archive Request

CALENDAR
Calendar

CM Column Map

CMPROC
Column Map Procedure

COMP
Compare Request

CONV Convert Request

CURRENCY Currency Table

DBALIAS DB Alias

DEL Delete Request

ED Edit Definition

EXTR Extract Request

LOAD Load Request

PK Primary Key

REL Relationship

REPT Report Request

REST Restore Request

STORPROF Storage Profile

TM Table Map

UPIN Update or Update/Insert Request

Object Name

The names of the security definitions available for importing.

New Object Name

Specify a new name for the security definition. The name must comply with the naming conventions for the security definition.

Shortcut Menu Commands

Right-click to select from the following shortcut menu commands:

Copy Name

Copies the Object Name to the New Object Name column for the security definition. Available in the Object Name column only.

Populate

Clear Copies the Object Name to the New Object Name column for all security definitions.

Add Copies the Object Name to the New Object Name column for security definitions without a New Object Name.

Empty Empties names from the New Object Name column for all security definitions.

Run Import

To import security definitions, choose the **File** → **Run** menu option.

Note: The **Run** command will not be available until you select at least one available security definition.

During Security Definition Import processing, the Import Progress pane displays the number of security definitions of each type that are imported and the number of errors encountered.

The status bar displays information about the current security definition that is processed. When Security Definition Import processing is finished, the status bar displays the message "Ready."

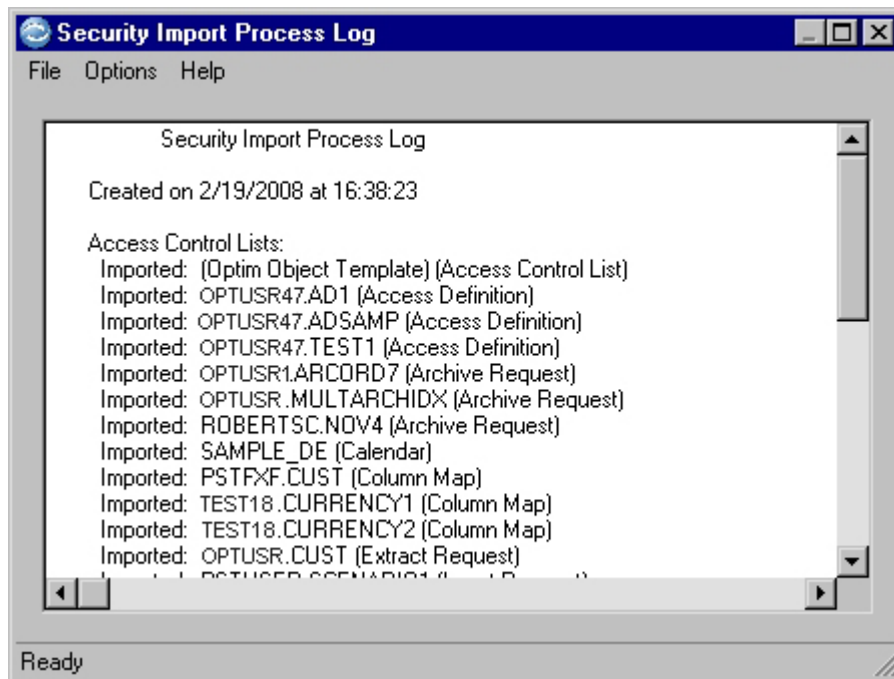
Import Errors

If the Import Security Definitions Utility encounters errors, processing continues according to the specification for the **Continue import if error(s)** option. Errors are displayed on the message bar and represented visually by a red "X" beside each security definition in error. Errors are written to the Security Import Process Log after Import Processing is finished. You can review and print the Security Import Process Log for diagnostic information about errors.

If some objects fail to be imported due to errors, check the specifications, and try Export and Import again.

Import Process Log

When Security Definition Import Processing finishes, select the **Tools → Show Process Log** menu option to display the Security Import Process Log.



Creation Date

Date and time the Security Import Process Log was created.

List of errors

Explanatory text for each error if errors were encountered.

List of imported objects

Names of the imported security definitions, listed by object type and name.

Print

Print the log by choosing the **File → Print** menu option. Each execution of the Security Definition Import clears the log before information for the current execution is written. Previous log information is not retained.

Appendix E. Security Reports

Using the Report Process, you can create a report on the permissions for Functional or Object Security privileges assigned to user and group accounts in your network.

You can also create a report on the contents of an Archive or Compare File or list Archive Directory entries that meet criteria you supply (for more information about these reports, see the *Archive User Manual* or *Compare User Manual*).

Security Reports

Security permissions allow or deny roles, which consist of user and group accounts, privileges such as the ability to open a dialog, run a process, or modify a specific object. Security Reports allow you to see which users and groups have permissions for these privileges and the roles to which the permissions apply. For more information about security privileges, see Appendix D, “Optim Security,” on page 383.

Depending on your specifications, you can create a report that will:

- List the Functional Security permissions assigned to specified users and groups.
- List all Functional Security permissions for selected privileges.
- List the Object Security permissions for specified users and groups that apply to specified objects and the ACL that secures each object.

Report Process

The Report Process runs on the workstation (not on the Optim Server). Specifications for a Report Process are stored as a Report Request. Use the Report Request to provide the report criteria and processing options. The Report Process Report dialog displays the report.

Run or Schedule

You can process a Report Request immediately (by selecting the **File** → **Run** menu option) or you can schedule the request for processing at a later time (by selecting the **File** → **Schedule** menu option).

Naming Conventions

A fully qualified Report Request name is in the form *identifier.name*, where:

identifier

Identifier assigned to the Report Request name (1 to 8 characters).

name

Base name assigned to the Report Request (1 to 12 characters).

A logical set of naming conventions can identify the use for each Report Request and be used to organize them for easy access.

Section Contents

This section explains how to create, maintain and process a Report Request, including how to:

- Select the type of Security Report.
- Provide criteria and values for the report.
- Run, save, and schedule a Report Request.

Open the Report Request Editor

Use the Report Request Editor to create or edit requests for Security Reports. You can store these requests in the Optim Directory. There are different ways to open the editor, depending on whether you want to create a new Report Request or edit an existing a Report Request.

Create a New Report Request

This section describes how to create a new Report Request.

You can create a Report Request from the main window or from the Report Request Editor.

From the Main Window

This section describes how to create a Report Request from the Main window.

To create a Report Request:

1. In the main window, select the **File** → **New** menu option.
2. Select the **Actions** → **Report** menu option to open the Report Request Editor.
3. On the **General** tab, select **Security** in the **Report Type** list, and provide an optional title for the report.
4. On the **Security Criteria** tab, enter criteria for a Security Report.
5. In the Report Request Editor, select the **File** → **Save** menu option to open the Save a Report Request dialog.
6. In the **Pattern** box, type a unique name for the new Report Request and click **Save**.

From the Report Request Editor

This section describes how to create a Report Request from the Report Request Editor.

To create a Report Request from the Editor:

- To create a new Report Request, select the **File** → **New** menu option in the Report Request Editor.
- To create a new Report Request modeled on an existing one, open the desired Report Request and select the **File** → **Save As** menu option.
- To create and store a copy of the active Report Request and continue editing, select the **File** → **Save Copy As** menu option.

These steps are the minimum required to create a Report Request. After you create a request, you can run the process immediately, or save the request and schedule it. Because the options to create a Report Request and to modify a Report Request are similar, refer to “Using the Editor” on page 439 for complete details.

Select a Report Request to Edit

You can select a Report Request for editing from the Main window or from the Report Request Editor.

To select a Report Request to edit:

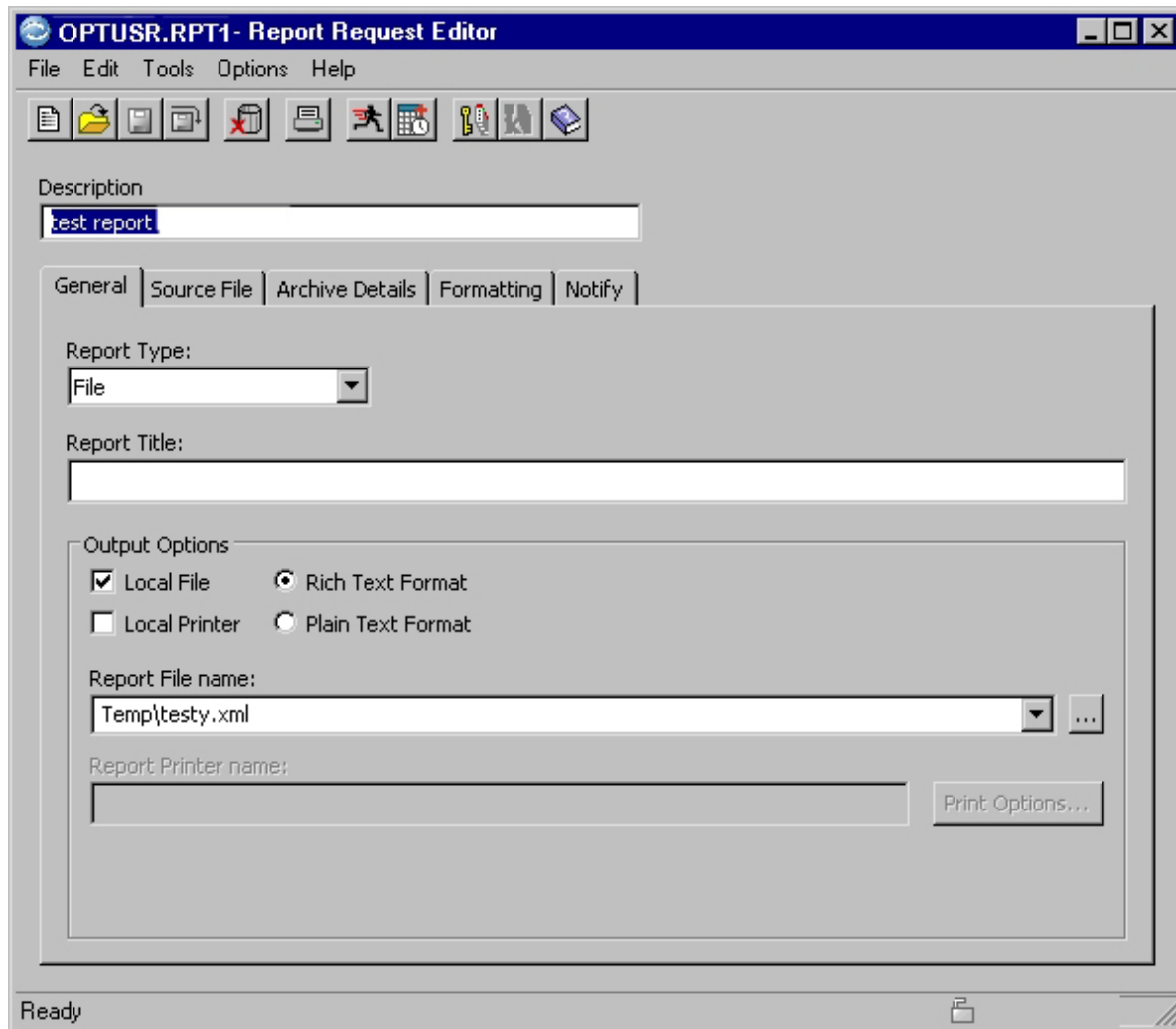
1. In the Main window, select the **File** → **Open** menu option to display the Open (object selection) dialog.
2. Double-click to select Report Request and expand the Identifier list.
3. Double-click the Report Request Identifier to display a list of Report Requests.
4. *Optional* – Specify a pattern to limit the list based on your criteria and click **Refresh**.
5. Double-click the grid row for the desired Report Request to open the Report Request Editor.

To select the last Report Request you edited, in the Main window, select the **Actions** → **Report** menu option to open the Report Request Editor and the last edited Report Request.

When you select the **File → Open** menu option in the Main window or an editor, the Open dialog is displayed. For more information about this dialog, see the *Common Elements Manual* .

Using the Editor

In the Report Request Editor you can create, modify, or delete Report Requests. You can also save Report Requests to the Optim Directory.



Description

Text to describe the purpose of the Report Request (up to 40 characters).

Tabs

Use the Report Request Editor tabs to provide parameters and select options to define Report Requests. Each tab in the editor serves a unique purpose.

General

Parameters required by the Report Process, including the type of report (i.e., Security), the report title, output options, report file name, and printer specifications, as applicable. Each time you open the editor, the **General** tab is shown first.

Security Criteria

Parameters needed to create a report on permissions for Functional or Object Security privileges. The **Security Criteria** tab is available when Report Type on the **General** tab is set to Security.

Archive Criteria

Parameters needed to select entries in the Archive Directory for the report. The **Archive Criteria** tab is available when Report Type on the **General** tab is set to Archive Directory. For more information, see the *Archive User Manual* .

Source File

Parameters needed to select an Archive or Compare File for the report. The **Source File** tab is available when Report Type on the **General** tab is set to File. For more information, see the *Archive User Manual* or *Compare User Manual* .

Archive Details

Layout and row display options for the report. The **Archive Details** tab is available when Report Type on the **General** tab is set to File and the Source File is an Archive File. For more information, see the *Archive User Manual* .

Compare Details

Layout and row display options for the report. The **Compare Details** tab is available when Report Type on the **General** tab is set to File and the Source File is a Compare File. For more information, see the *Compare User Manual* .

Formatting

Limits, spacing, and table heading options for the report. The defaults for formatting options are set in Product Options. The **Formatting** tab is available only when Report Type on the **General** tab is set to File.

Notify Options for automatic email notification of the success or failure of the process.

Tools Menu Commands

In addition to the standard commands on the **File**, **Edit**, and **Tools** menus, you can select the following commands from the **Tools** menu:

Convert to Local

Convert a named Report Request to a local Report Request. A local Report Request is saved with the Archive Request. Available only when the Report Type on the **General** tab is set to File.

Edit Joins

Open the Edit Joins dialog to select joined tables in the report. Available when **Show Joins** is selected on the **Archive Details** tab and the Report Type on the **General** tab is set to File.

General Tab

Use the **General** tab to select the report type.

Report Type

Select the type of report:

File Report on data in a Source Archive or Compare File. For more information, see the *Archive User Manual* or *Compare User Manual* .

Archive Directory

Report on selected Archive Directory entries and the properties of associated Archive Files. For more information, see the *Archive User Manual* .

Security

Report on Functional or Object Security permissions.

Report Title

The Report Title is not available for Security Reports.

Output Options

The Output Options are not available for Security Reports. You can save and print a report from the Report Process Report dialog.

Security Criteria

Use the **Security Criteria** tab to define criteria for reports on permissions for Functional or Object Security privileges. Permissions apply to users and groups defined in roles in an Access Control Domain (ACD).

Functional Security reporting lists permissions defined in the (Default) ACD. Object Security reporting lists permissions defined in the ACD associated with the Access Control List (ACL) that secures a specified object. For more information about ACDs, ACLs, and security privileges, see Appendix D, "Optim Security," on page 383.

The screenshot shows the 'OPTUSR.RPT1 - Report Request Editor' window with the 'Security Criteria' tab selected. The 'Description' field contains 'test report'. The 'Criteria Type' dropdown is set to 'User'. The 'Server Name' dropdown is set to '(Local)'. Below these, there is a table with the header 'Domain and User/Group'. The table has two rows: row 1 contains 'dom\pstuser' and row 2 is empty. The status bar at the bottom indicates 'Ready'.

Domain and User/Group	
1	dom\pstuser
2	

Criteria Type

Select a Security Report type:

User Lists Functional Security permissions for specified users and groups.

Function

Lists all Functional Security permissions for selected privileges.

Object

Lists Object Security permissions for specified users and groups that apply to specified objects and the ACL that secures each object.

Server Name

For User and Object Security Reports. Select the name of an Optim Server or the (Local) workstation that the Report Process will use to verify user and group names. The machine must be part of the domain or node where the accounts of the user and group names in the report are defined.

User Report

The User Security Report lists Functional Security permissions for specified users and groups. The report lists each privilege class and permissions for the associated privileges as well as the role to which a permission applies.

If a user is a member of a group for which Functional Security is defined, the group is included. You can use wild cards for criteria.

Domain and User/Group

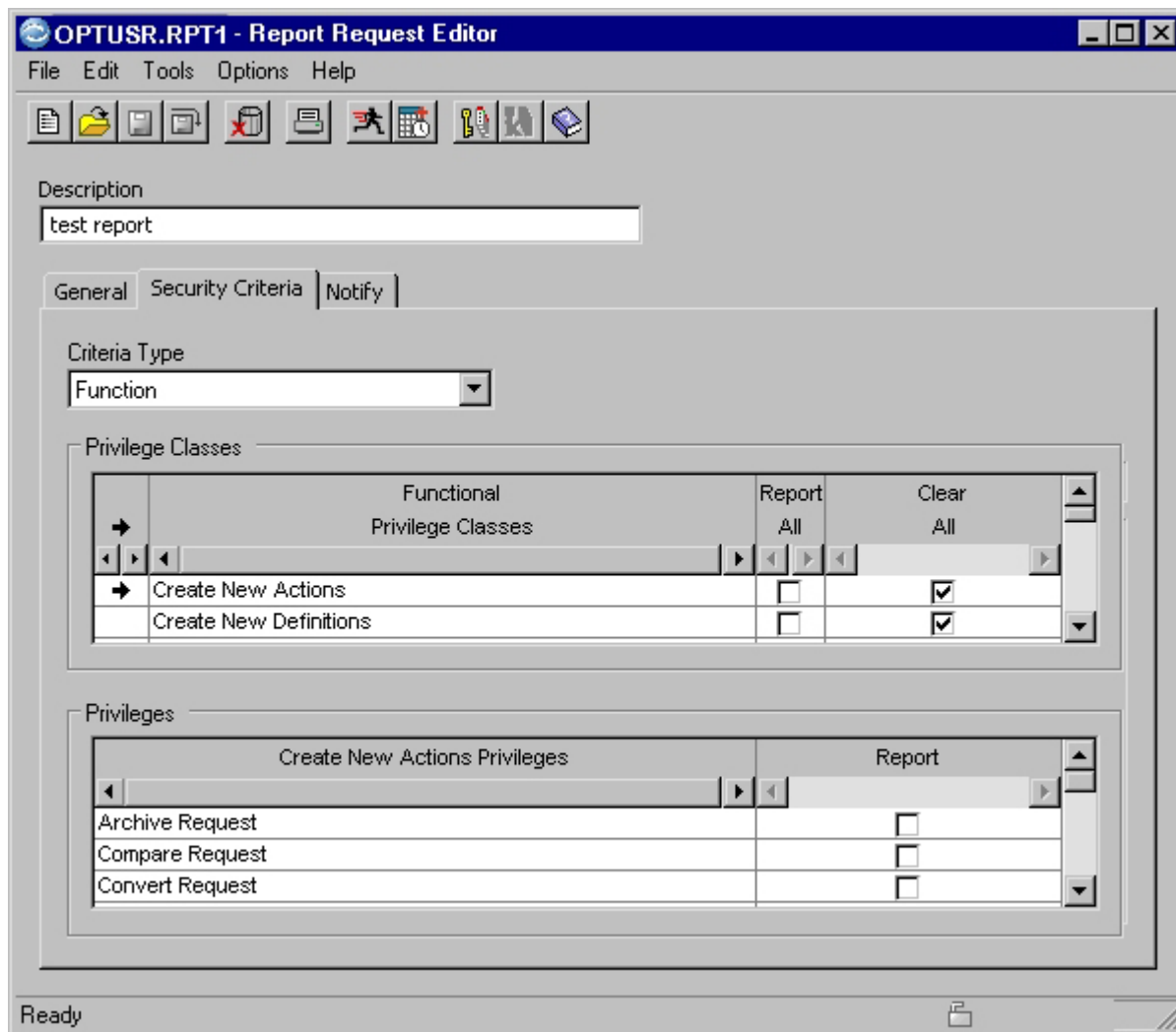
Enter user or group names in the format *domain\name*, or “everyone” to include all group and user names in all domains and nodes. Enter one name per line.

You can use percent (%) as a wild card character, but the pattern must use the *domain\name* format. For example, *dom\n%* or *%\%*.

Function Report

The Function Security Report lists Functional Security permissions assigned to each user and group for selected privileges as well as the role to which they apply.

The tab is divided into two grids, one for privilege classes and one for privileges that are included in the selected privilege class. For a description of Functional Security privilege classes and privileges, see “Functional Privileges Tab” on page 397.



Privilege Classes

Use the Privilege Classes grid to display associated privileges in the Privileges grid. You can also use the Privilege Classes grid to select all associated privileges for reporting or clear all associated privileges selected for reporting.

To select a row in the Privilege Classes grid, click a row indicator cell or either a **Report All** or **Clear All** cell. The grid arrow, ➔, indicates the class of privileges displayed.

To include all associated privileges in the report, select **Report All**. To remove all selections in the Privileges grid, select **Clear All**.

Privileges

Use the Privileges grid to select privileges to include in the report. To include a privilege, select **Report**.

Shortcut Menu Commands

Right-click the Privileges Classes grid to display the following shortcut menu commands:

Report All Classes

Select **Report All** for all privilege classes.

Clear All Classes

Select **Clear All** for all privilege classes.

Right-click the Privileges grid to display the following shortcut menu commands:

Report All

Select **Report** for all privileges.

Clear All

Clear **Report** for all privileges.

Object Report

The Object Security Report lists Object Security permissions assigned to specified users or groups for specified Optim objects and the ACL that secures each object. You can use wild cards for criteria. The report is sorted alphabetically by object type.

Note: The Object Security Report allows you to view permissions for ACLs for which you do not have read access.

OPTUSR.RPT1 - Report Request Editor

File Edit Tools Options Help

Description
test report

General Security Criteria Notify

Criteria Type
Object

Server Name
(Local)

	Object Type	Object Name	Domain and User/Group
1	Access Definition	%.AD%	dom\pstuser
2	Extract Request	%.%	everyone
3			

Ready

Object Type

Select an object type.

Object Name

Enter an object name. You can use percent (%) as a wild card character, but the pattern must match the object name format. For example, if an object uses a two-part name, enter *own%.nam%*.

Domain and User/Group

Enter user or group names in the format *domain\name*, or “everyone” to include all group and user names in all domains and nodes. Enter one name per line.

You can use percent (%) as a wild card character, but the pattern must use the *domain\name* format. For example, *dom\n%* or *%\%*.

Notify Tab

Use the **Notify** tab to specify options and addresses for automatic email notification of the success or failure of the process. The process report generated when the process completes is automatically sent as an attachment.

Process a Report Request

A Report Request processes in several steps. There are a few differences depending on whether you schedule the process or run the Report Request immediately.

Schedule a Report Process

To schedule a Report Process to run once or repeatedly at a specified future time, save the Report Request and select Schedule from the File menu.

- Processing is initiated at the scheduled time; you do not review the Report Process as it is performed.
- If warning conditions exist, processing continues without prompting, depending on the Stop on Error parameter you specified on the **Steps** tab of the Scheduling Job dialog.
- If an error occurs during the Report Process, processing stops.

For details on scheduling, refer to the *Common Elements Manual* .

Run a Report Request

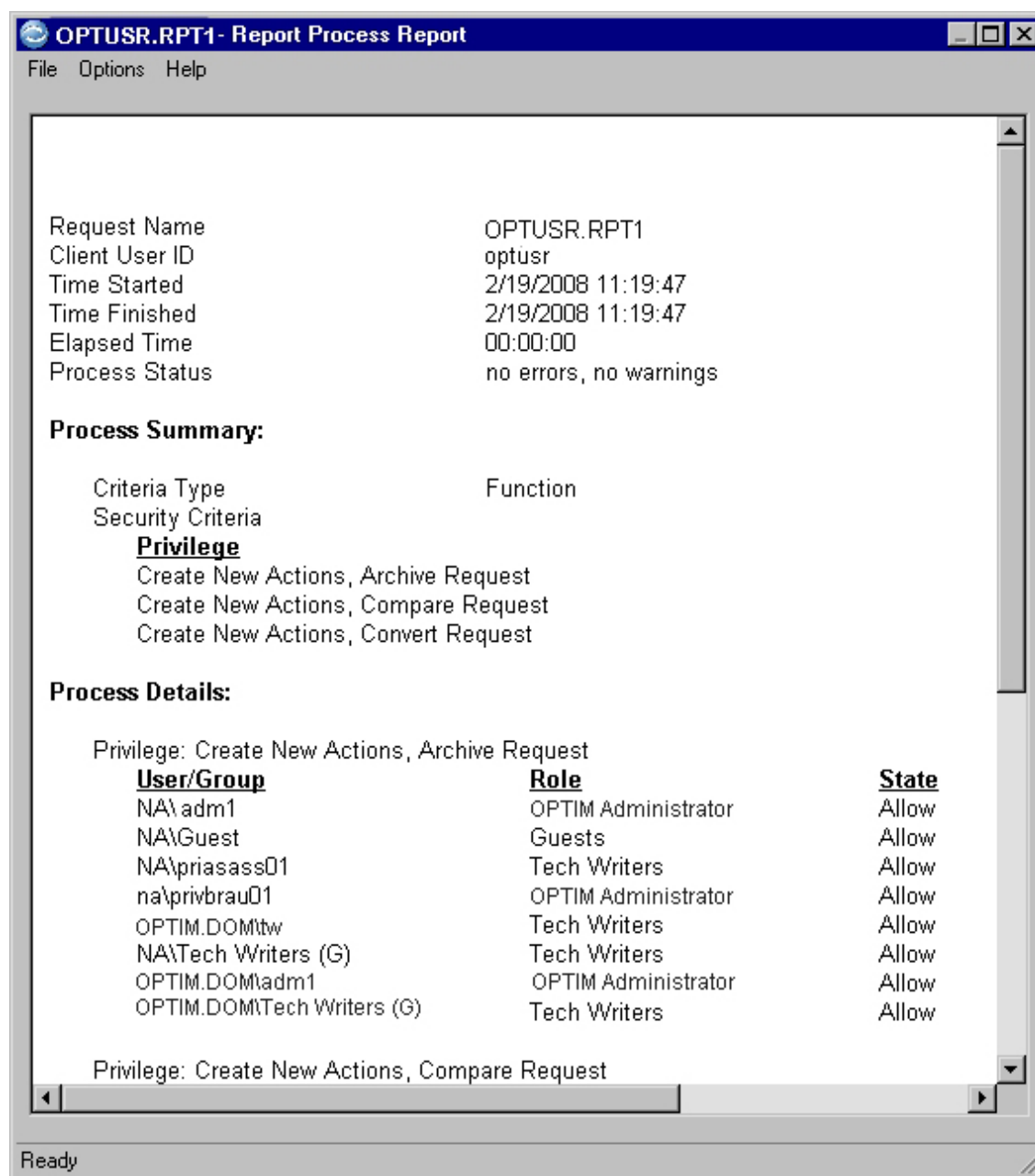
To process a Report Request immediately, select Run from the File menu. It is not necessary to save the Report Request before it is run.

- Before processing begins, the Report Request is verified. If errors exist, you can review the details on the message bar at the bottom of the Report Request Editor.
- After the Report Request has been verified, the process parameters are verified. If warnings or errors exist, you can review the details in the Warnings dialog and choose to continue or cancel the process.
- During processing, the Report Request Progress dialog displays the progress of the process and allows you to cancel the process.
- If an error occurs during the Report Process, processing stops.

Report Process Report

The Report Process generates a Report Process Report that provides general information and statistics about the Report Process. The formatting of the Report Process Report is determined by the Report Type.

The following is a sample Function Security Report:



The Report Process Report displays the following information:

- Name of the Report Request (or “(Untitled)” if you did not save the request).
- User ID of the user requesting the Report Process.
- Date and time the Report Process started.
- Date and time the Report Process completed.
- The elapsed time.
- A list of any warnings or errors that occur during processing.

Process Summary

The Criteria Type indicates the type of Security Report: User, Functional, or Object. For User and Object Security Reports, the Server Name is included.

The Security Criteria lists the criteria entered for each Security Report type:

- For a User Security Report, each User/Group is listed.
- For a Functional Security Report, each selected privilege is listed.
- For an Object Security Report, each Object Type, Object Name, and User/Group is listed.

Process Details

User Security Reports are sorted by user/group names. Group names are indicated by a (G). The following details are included:

Privilege

Lists each privilege class above an indented list of associated privileges.

Role The role name that includes the user or group.

State The type of permission, Allow or Deny. "None" indicates a permission is not defined.

Functional Security Reports are sorted by privilege. The following details are included:

User/Group

The users and groups assigned permissions. Group names are indicated by a (G).

Role The role name that includes the user or group.

State The type of permission, Allow or Deny. "None" indicates a permission is not defined.

Object Security Reports are sorted by object type. For each object type, the report lists object names. If an object is secured, the report includes the ACD (in parentheses) associated with the ACL that secures the object, the ACL owner, and the permissions. If an object is not secured, the report will display "Not Secured" next to the object name. Following the listed objects, a List of Used ACDs displays the ACDs listed in the report. The following details are included:

User/Group

The users and groups assigned permissions. Group names are indicated by a (G).

Role The role name that includes the user or group. The "ACL Owner" is also included.

Object Access

Access privileges for the object. Permissions (Allow or Deny) are listed below each privilege. "None" indicates a permission is not defined. "Owner" indicates the user is the ACL owner and allowed the privilege, overriding a permission set for another role that includes the user. "N/A" indicates the privilege does not apply to the object.

Read Open or view an object.

Upd Save an object.

Del Delete an object.

Exec Run a process request.

ACL Access

Access privileges for the ACL that secures the object. Permissions (Allow or Deny) are listed below each privilege. "None" indicates a permission is not defined. "Owner" indicates the user is the ACL owner and allowed the privilege, overriding a permission set for another role that includes the user.

Read View the ACL.

Upd Modify the ACL.
Del Delete the ACL.

Appendix F. Open Data Manager

Optim Open Data Manager (ODM) provides access to data in Optim Archive Files for programs that use the Open Database Connectivity (ODBC) and Java Database Connectivity (JDBC) Application Programming Interfaces (APIs). ODM is unavailable when Optim is installed in a UNIX or Linux environment. Optim must be installed before installing ODM; however, ODM can be installed during the Optim installation process.

ODM is implemented using the Attunity Connect product in concert with a custom driver that provides access to Archive Files and Archive File Collections. Attunity Connect is a rich peer-to-peer networking product. A full set of Attunity manuals is included with ODM. This appendix describes how to install, configure, and use ODM to provide access to Archive Files.

Note:

Open Data Manager is provided with a 30-day trial license that must be replaced with a permanent license for continued use. To obtain the permanent license, you must submit a Service Request at the Integrated Data Management Support site.

Deployment Strategy

To be accessed using ODM, Archive Files must be registered in an Optim Directory and be accessible from the ODM Server on which the data source is defined. A primary ODM Server resides on an Optim Server machine with one or more ODM data sources for Archive Files or Archive File Collections.

If JDBC is the sole API used to access archived data, a direct connection is made to the ODM Server. This connection requires the Attunity JDBC driver to access archived data.

If ODBC is used to access archived data, Attunity's new thin ODBC client can connect directly to an ODM Server without the need of a secondary server.

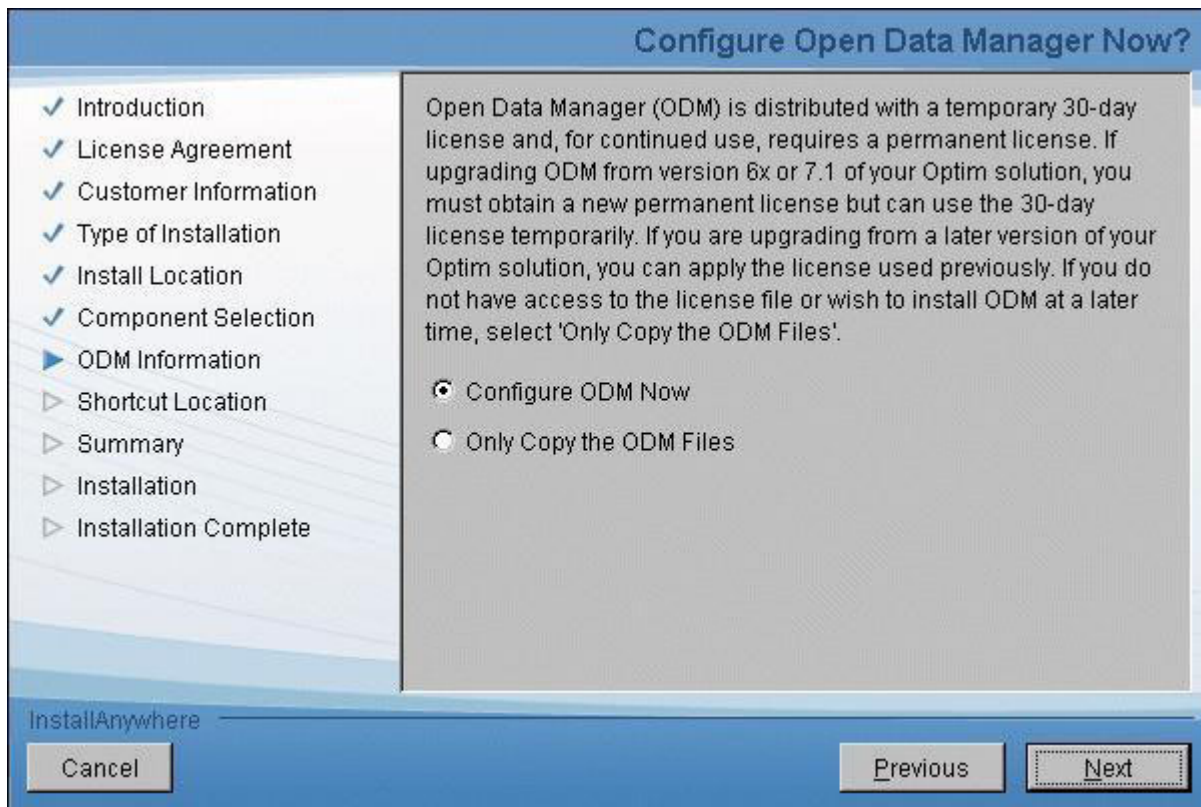
You can use Attunity Studio, which is included with your ODM installation, to administer the ODM Server from a Windows machine. Attunity documentation is located in the ODM\doc subdirectory of the Optim installation directory.

Installation

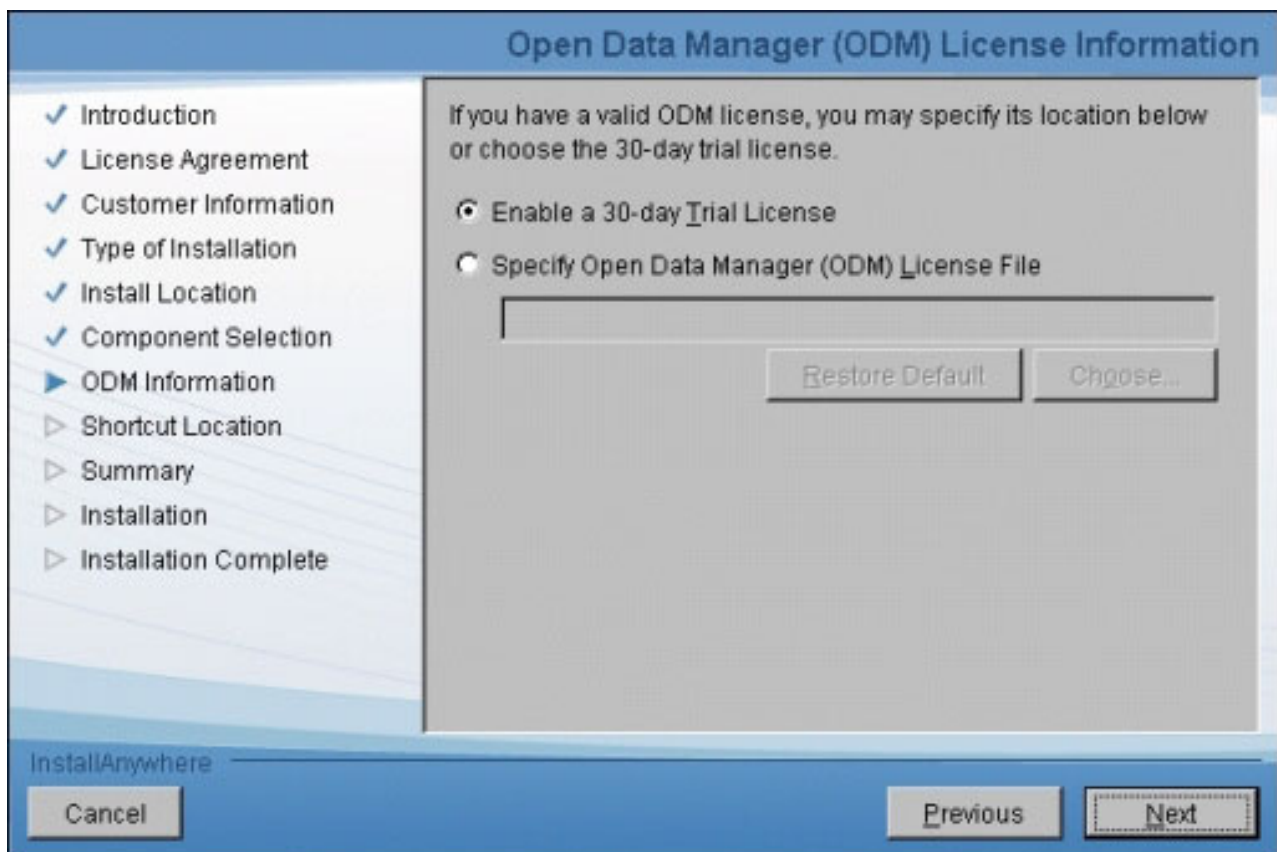
The Optim installation DVD for Windows includes installation files for the ODM Server and Attunity Studio. The Optim installation DVD for Linux includes installation files for the ODM Server only.

Note: If installing ODM Server or Attunity Studio in a Windows environment, you must remove any prior versions before installation.

During the installation of Optim you can install ODM as part of the Optim installation process, or copy the ODM files and install ODM at a later time:



Selecting Configure ODM Now displays the ODM license dialog:



Enable a 30-day Trial License

Selecting this option installs ODM for a 30-day trial use.

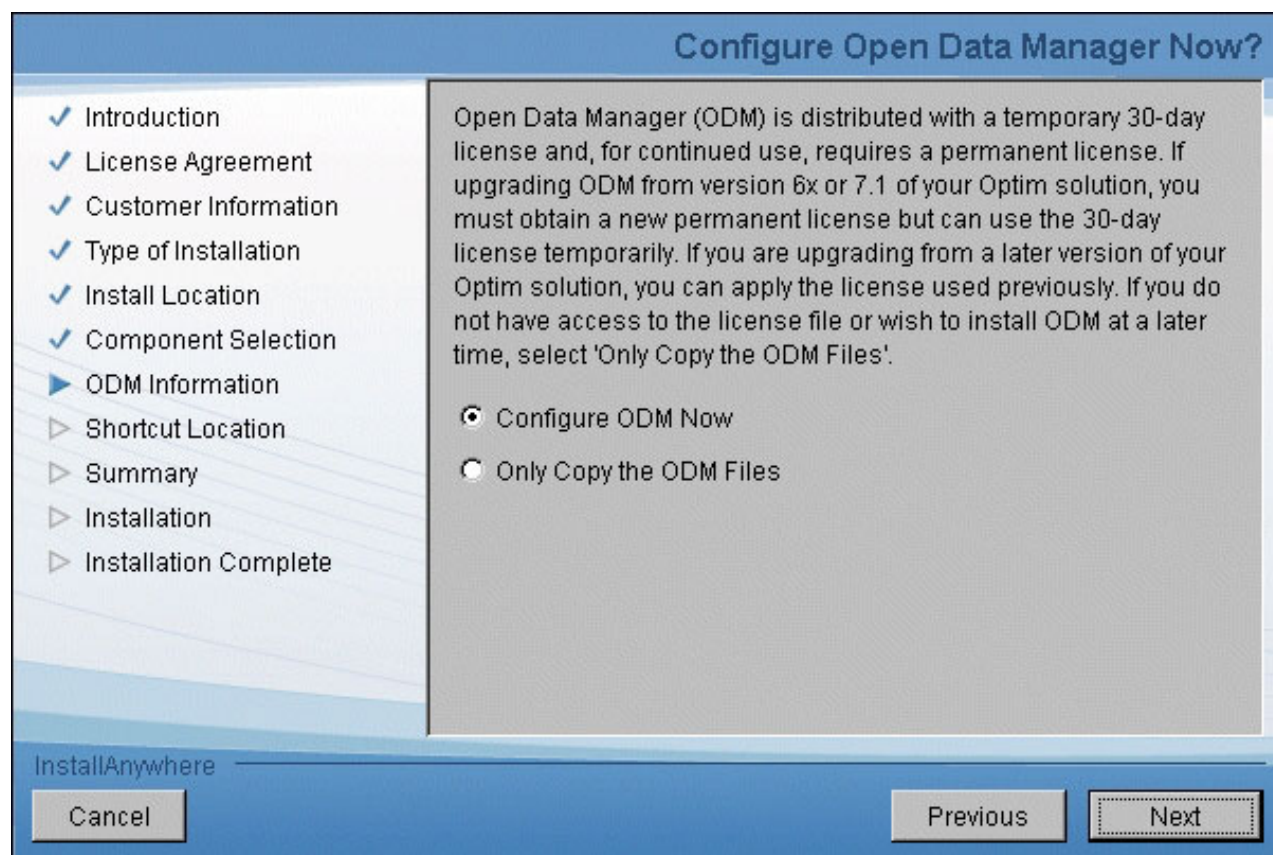
Specify Open Data Manager (ODM) License File

Selecting this option displays enables the text box below the radio button. Type your ODM license file in the text box or click **Choose...** to browse for the license file.

Windows Installation

To install ODM, select ODM Interface on the Select Components dialog of the Optim installation program.

You can install ODM as part of the Optim installation or copy the ODM installation files to your machine for use at a later time.



Install and Configure ODM Now

Select this option to install the ODM Server. You are prompted for the ODM license file and both the ODM Server and Attunity Studio are automatically installed. The ODM Server and Attunity Studio installation files are also copied to your machine.

If both ODM Server and Attunity Studio version 5.3 are already installed, this option is labeled **Configure ODM Now**. If an earlier version of Attunity Server is already installed, you must uninstall Attunity Server before installing the Optim ODM component.

Only Copy the ODM Files

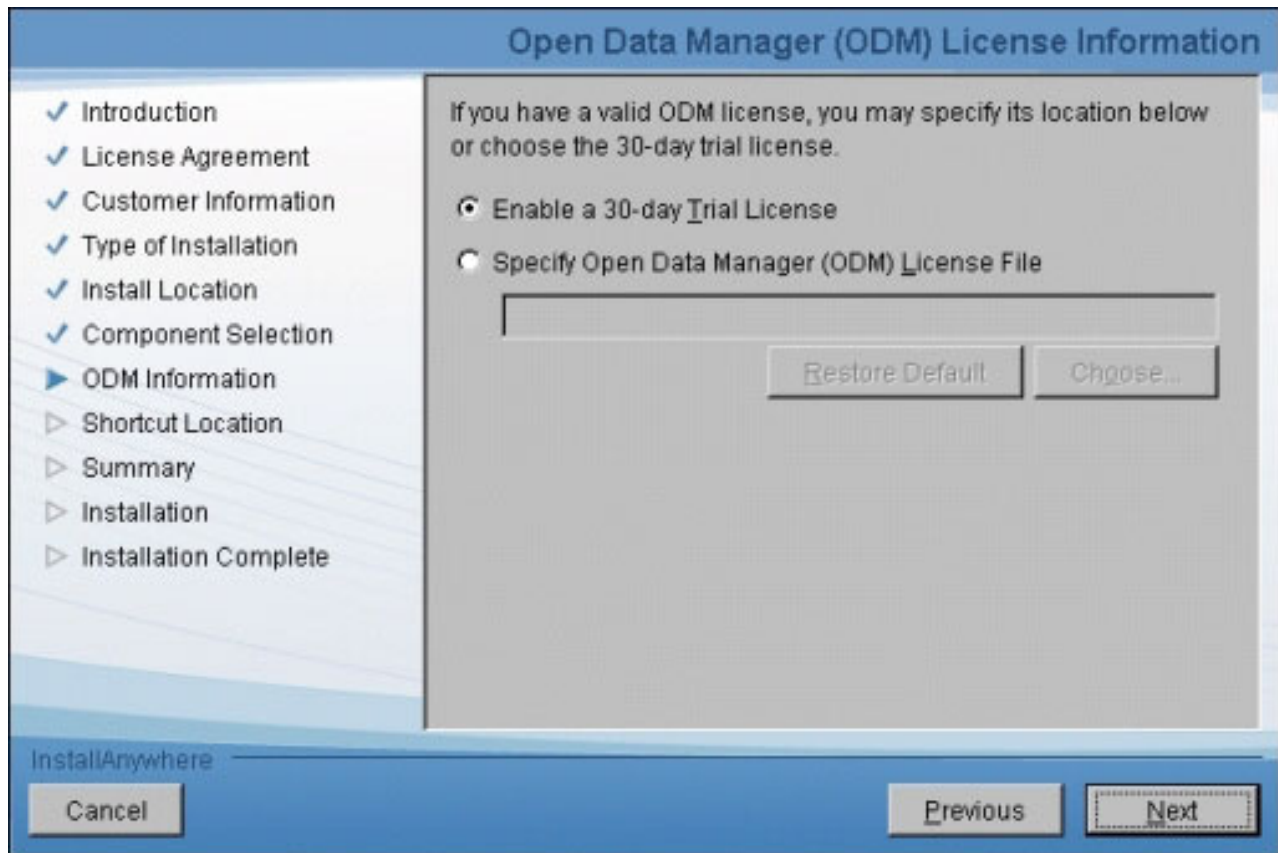
Select this option to install the ODM Server manually. This option copies the ODM Server and Attunity Studio installation files to your machine. To complete the ODM installation, you must install ODM manually.

Note: If you have previously used ODM to support Optim Data Source Extensions, the Optim installer will notify you that it cannot upgrade ODM. Upgrading ODM is not necessary for Optim 7.3, but if you want to upgrade, you will be directed to instructions on how to upgrade ODM manually.

Specify ODM License Type

After you choose **Install and Configure ODM Now**, the dialog prompts you to select the type of license you will use.

Optim requires an updated ODM license. If you do not have one, select **Enable a 30 day ODM Trial License** for immediate access. To obtain a new license, submit a Service Request to Optim Support.



Automatic ODM Installation

If you choose **Install and Configure ODM Now** (or **Configure ODM Now**), the Specify ODM License File dialog is displayed. Enter the path to the ODM license file, or click **Browse** to select a path.

After you provide the license file path, click **Next** to display the Shortcut Location dialog (see “Shortcut Location” on page 32) and continue the Optim installation.

ODM is installed at the end of the Optim installation process and Command Prompt dialogs requiring no entries are displayed.

If you chose **Enable a 30 day ODM Trial License**, you will not have to specify a license file.

Manual ODM Installation

To install the ODM Server manually, you must run the ODM installation script and register the Attunity license. The installation includes the ODM Server and Attunity Studio.

To install a second instance of ODM Server manually, you must run the ODM Server installation file. This server installation includes the ODM Server only.

To install an ODM Server on a Windows machine:

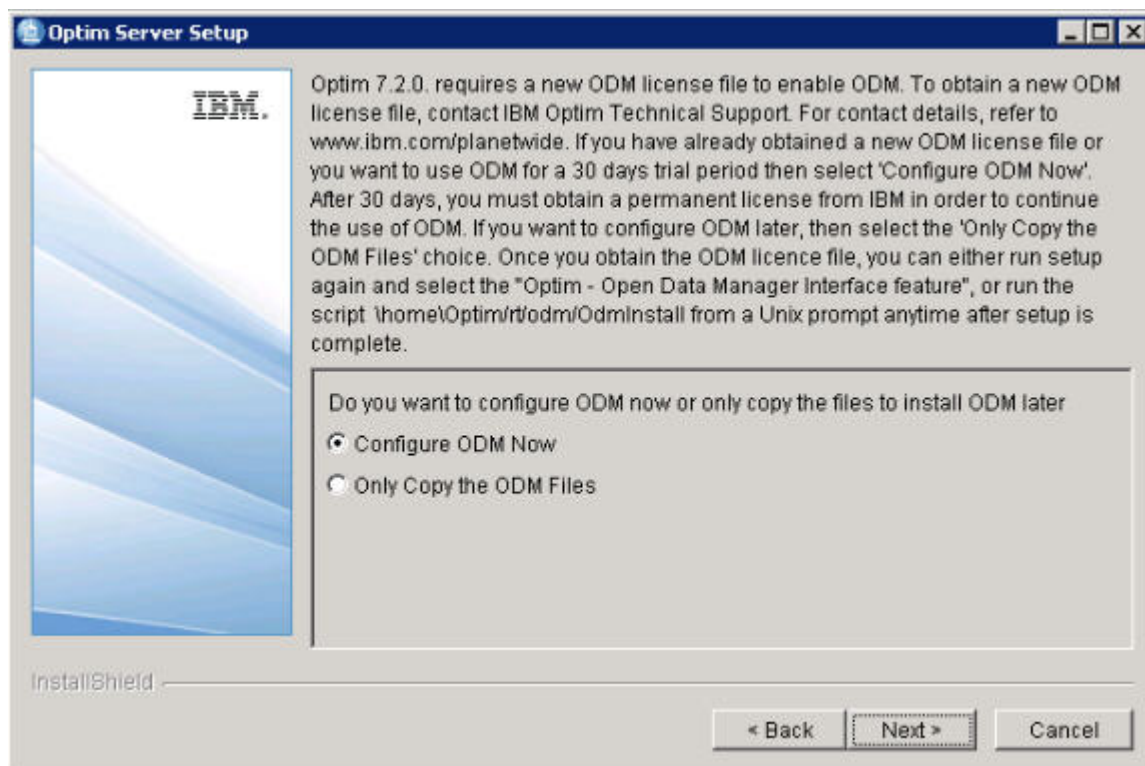
1. Copy the Attunity license file to a directory on your machine.
2. From a Command Prompt, access the ODM\install subdirectory of the Optim installation directory.
3. Type the following command:
ODMINSTALL
4. When prompted to confirm the Attunity Server installation, click **OK**.
5. When prompted, type the path to the Attunity license file and click **OK**.

Note: To install a second instance of the ODM Server on a Windows machine, run the ODM Server installation file, *AIS_53020-win32.exe*, located in the ODM\install subdirectory of the Optim installation directory.

By default, the Attunity daemon runs under the Local System account. If access to needed resources requires network credentials, you must change the daemon logon to an appropriate network account. To change the logon account, open the Services dialog from the Control Panel/Administrative Tools, double-click **Attunity Server Daemon (IRPCD)**, and specify the account on the **Log On** tab.

UNIX Installation

To install the ODM Server in a UNIX environment, select Open Data Manager Interface from the select components dialog of the Server Setup program. You can install the ODM Server as part of the Server installation or copy the ODM Server installation files to your machine for use at a later time.



Configure ODM Now

This option prompts you for the ODM license file and automatically installs the ODM Server.

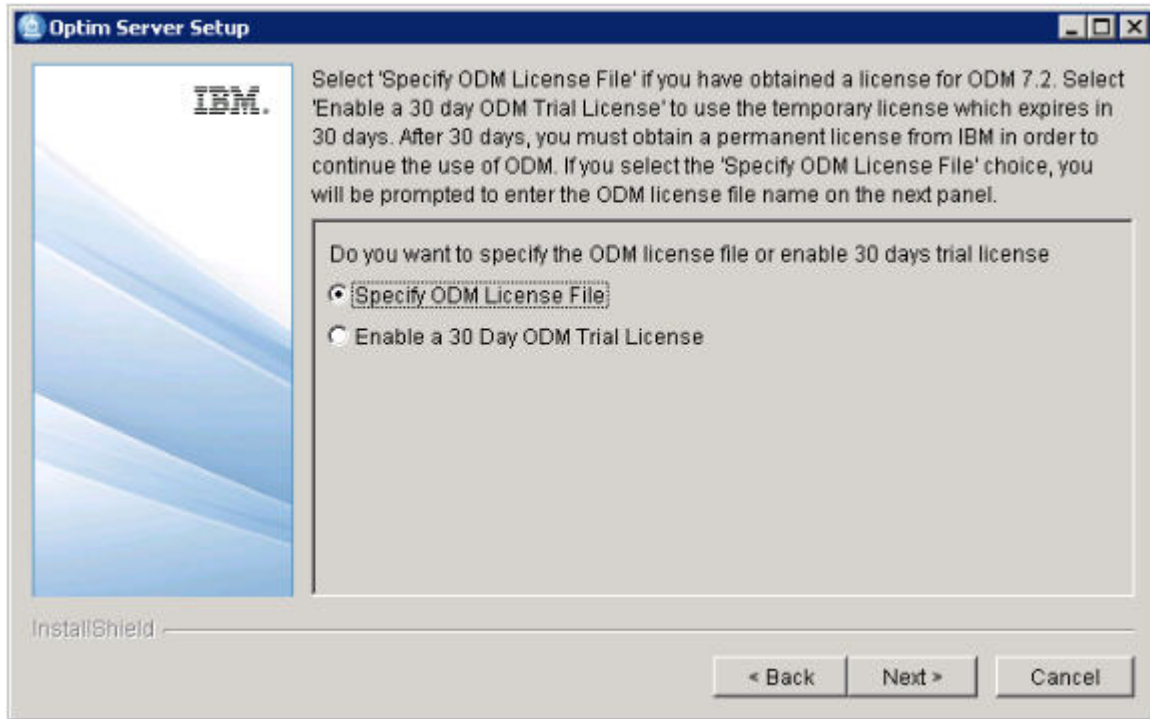
Only Copy the ODM Files

This option copies the ODM Server installation files to your machine. To complete the ODM Server installation, you must install the ODM Server and register the ODM license manually.

Specify ODM License Type

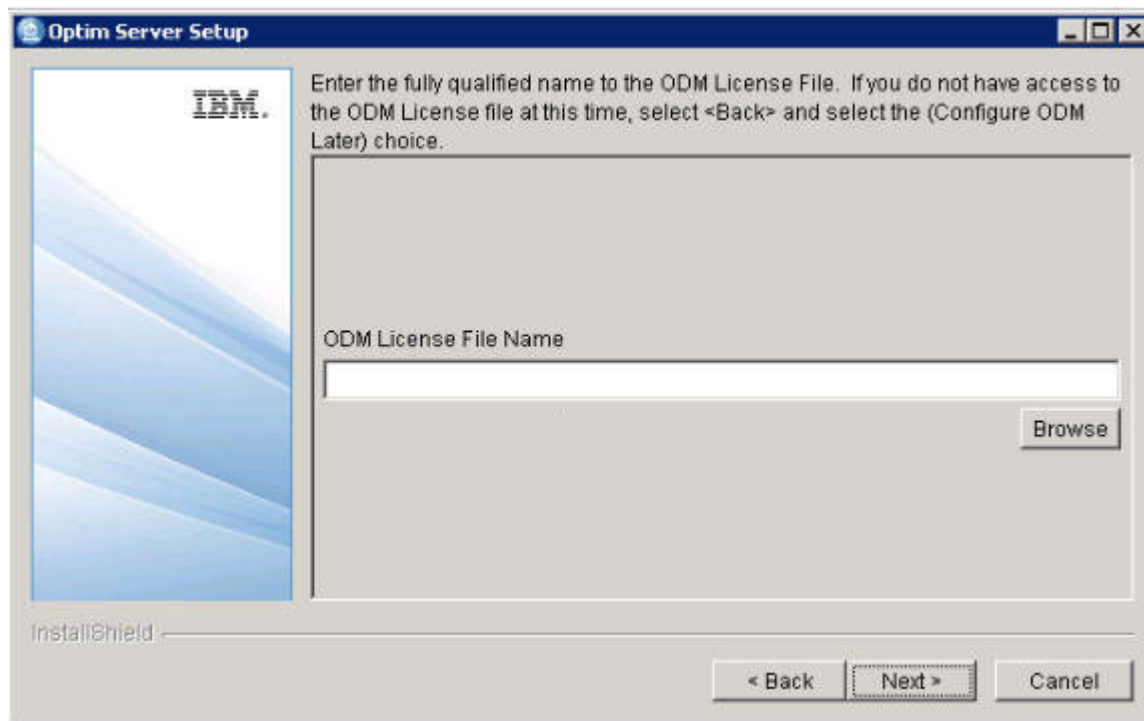
After you choose **Configure ODM Now** from the Setup program, the dialog prompts you to select the type of license you will use.

Optim 7.2 requires an updated ODM license. If you do not have one, you can select **Enable a 30 Day ODM Trial License** for immediate access. To obtain a new license, submit a Service Request to Optim Support.



Automatic ODM Server Installation

After you choose **Specify ODM License File** from the Setup program, the next dialog prompts you for the ODM license. Enter the path to the ODM license file, or click **Browse** to select a path.



After you provide the license file path, click **Next** to continue the Optim installation. When the ODM installation is complete, a progress dialog indicates that the installation was successful. Press **Enter** to close the dialog.

If you chose **Enable a 30 day ODM Trial License**, you will not have to specify a license file.

Manual ODM Installation

To install the ODM Server manually, you must run the ODM Server installation script and register the ODM license file.

To install an ODM Server in UNIX:

1. Run the ODM Server installation file, *OdmInstall*, located in the `rt/odm/install` subdirectory.
2. When prompted, type the path of the Attunity license key, *license.txt*.
3. Log off and log back on to effect changes to `.profile`.

Note: For users of Oracle prior to release 9.2, ODM and the Oracle Transparent Gateway use different versions of the `libnvbaseshr.so` library. To avoid a conflict, Oracle Transparent Gateway and ODM must be assigned to different user accounts. The shared library path environment variable (e.g., `LIBPATH` for AIX) for the Oracle Transparent Gateway account must reference the library in the Oracle directory before the library in the Attunity directory.

UNIX Administration

After ODM is installed, if it has not been done previously, you must source the `RTSETENV` file to set up the environment needed to run ODM.

If you have added `RTSETENV` to your `.profile` or `.login`, source that file instead. If not, change to the directory where Optim is installed (e.g., `/opt/IBM/Optim`) and use:

```
$ . ./rtsetenv
```

Starting the ODM Server

Once you have set up the required environment, use the following to start the ODM Server:

```
irpcdstart
```

Stopping the ODM Server

Optim and the ODM Server share common resources. To reinstall or upgrade Optim, you must shut down both Optim and the ODM Server prior to starting the installation. Use the following procedure to shut down both Optim and the ODM Server:

```
$ rtserver stop
irpcdshutdown
$ mwadm stop
```

Notes:

- Do not use 'mwadm stop' prior to invoking 'irpcdshutdown,' otherwise, you may not be able to restart Optim.
- To shut down Optim only, do not invoke 'mwadm stop.'

Attunity Studio Configuration

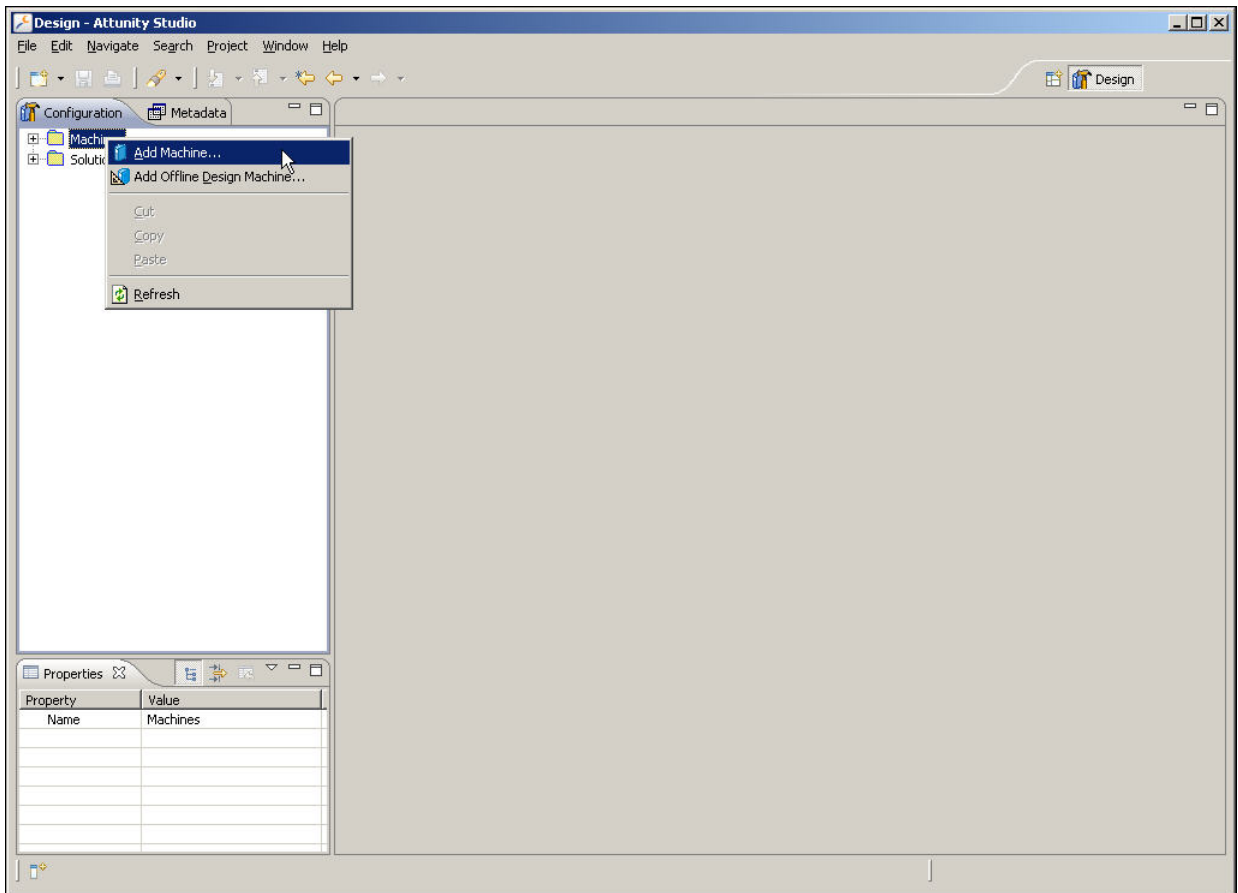
Attunity Studio is used to configure the ODM Server environment from a Windows machine.

Adding an ODM Server to Attunity Studio

This section describes how to add an ODM Server to Attunity Studio.

To add an ODM Server to Attunity Studio:

1. Open Attunity Studio from the Attunity folder in the Windows Programs list.
2. In the Configuration explorer, right-click **Machines** and select **Add Machine...** from the shortcut menu to open the Add machine dialog.



3. In the Add machine dialog, enter the Host name/IP address or “localhost” for the machine hosting Attunity Studio.

Add machine
Define new machine

Machine

Host name/IP address: Browse

Port:

Display name:

Connection

Leave empty for anonymous login

User name:

Password:

☐ Connect via NAT with a fixed IP address

Finish Cancel

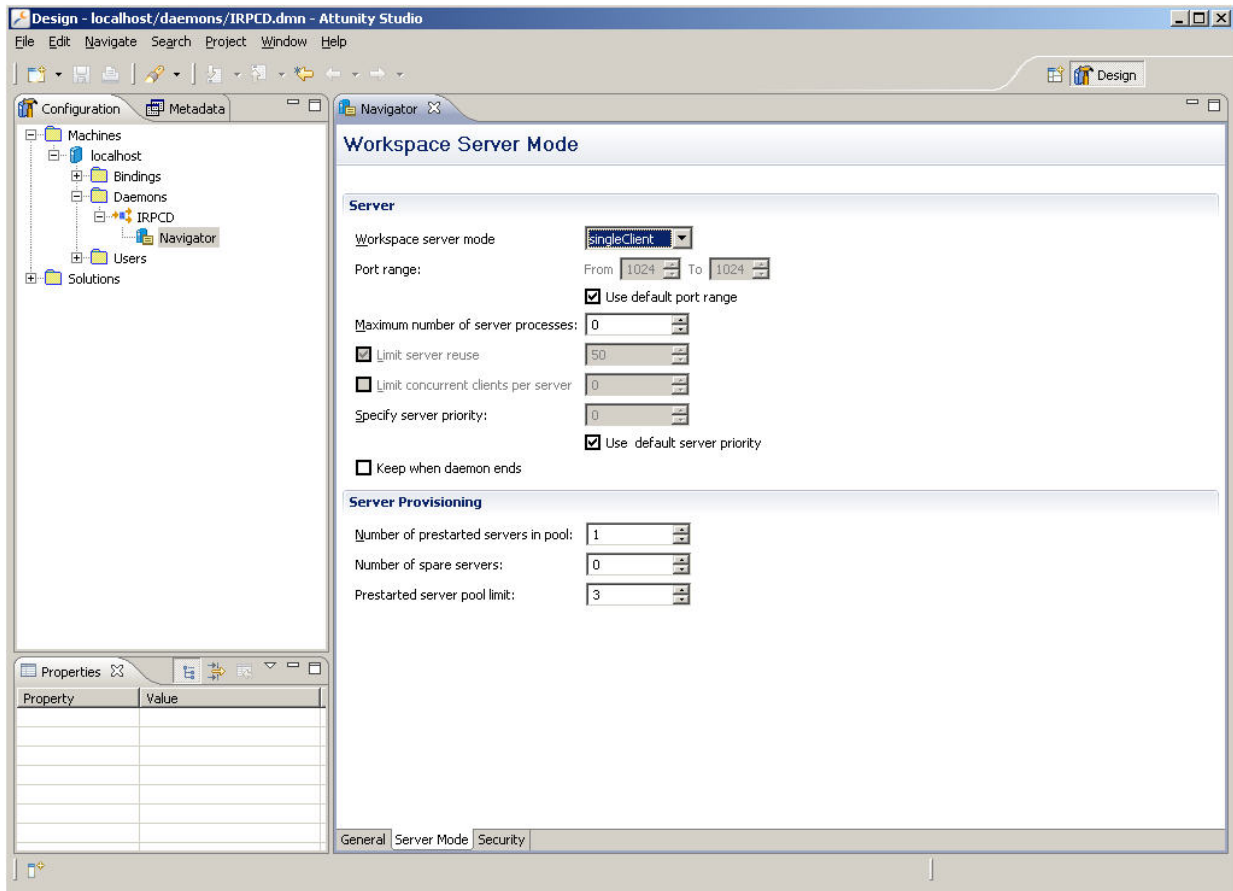
4. Use the default Port, 2551.
5. If anonymous logon is not allowed, enter the User name and Password needed to connect to the machine.

Edit Windows Workspace Server

An ODM Server on a Windows machine must be configured to run a separate process each time ODM accesses an Archive File. This configuration is the default for UNIX servers and no special configuration is required.

To edit the server configuration for Windows:

1. In the Attunity Studio Configuration explorer Machines list, expand the Windows server list, the Daemons list, and the IRPCD list to display the Navigator member.
2. Right-click Navigator and select **Open** from the shortcut menu to open the IRPCD - Navigator dialog.
3. Select the **Server Mode** tab.



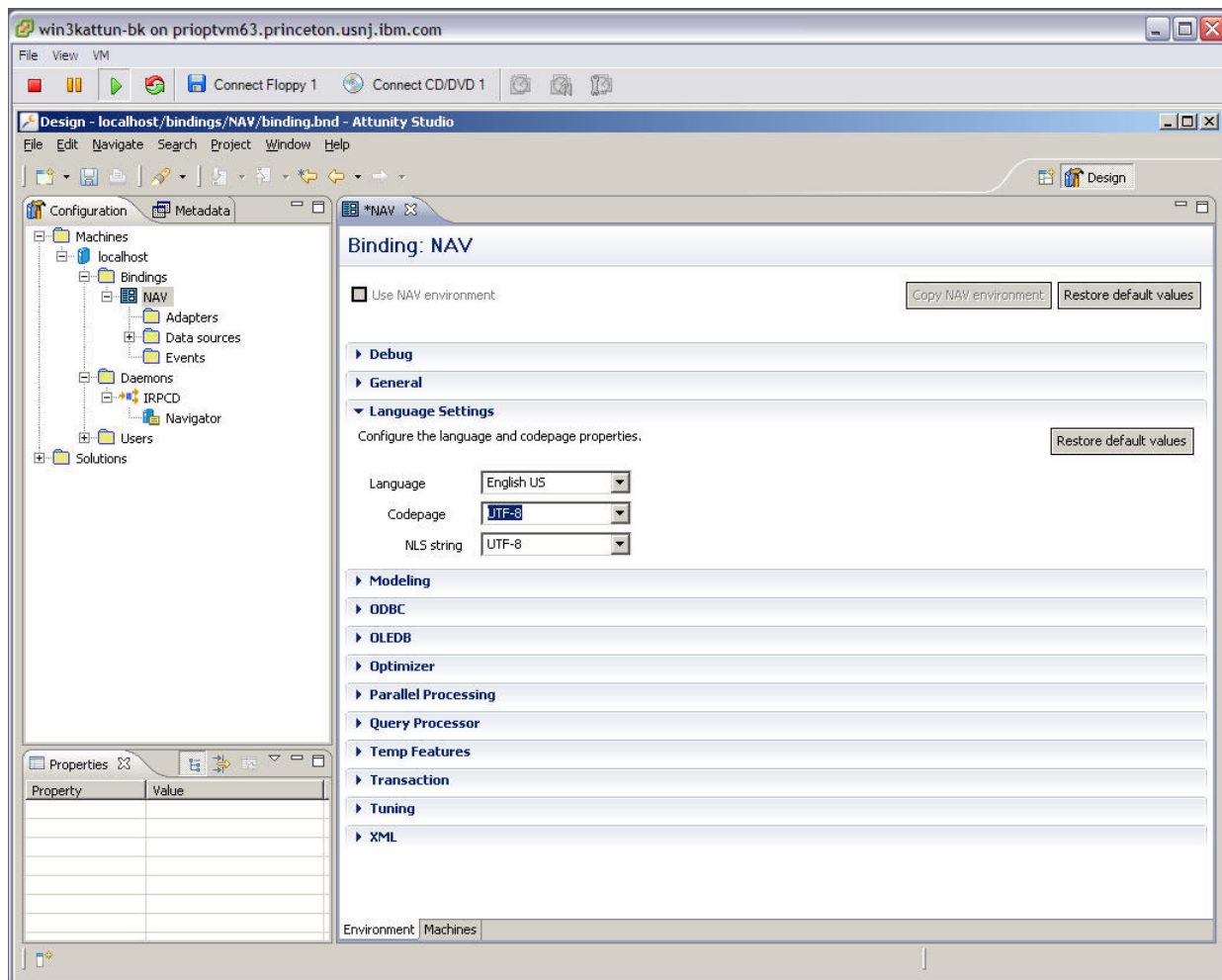
4. From the **Workspace server mode** list, select **singleClient**.
5. From the **File** menu, select **Save All**.

Edit the ODM Server Code Page

UTF-8 users must edit the ODM Server code page. By default, ODM first translates archived data to match the workstation code page on the primary ODM Server. ODM then translates the code page on the secondary ODM Server (if one exists). You can use UTF-8 data only if all data passed to ODM is in UTF-8 format (including SQL statements). To use UTF-8 format, you must set the code page on the ODM Server.

To edit the ODM Server code page:

1. In the Attunity Studio Configuration explorer **Machines** list, expand the ODM Server list and the **Bindings** list to display the NAV member.
2. Right-click the NAV member and select **Open** from the shortcut menu to open the NAV binding editor.
3. Select the **Environment** tab.



4. Expand the **Language Settings** section.
5. From the **Codepage** list, select **UTF-8**.
6. From the **File** menu, select **Save All**.

Define the Data Source on the ODM Server

A data source definition on the ODM Server is needed to access archived data.

You can define a data source for each Archive File and Archive File Collection or specify the Archive File or Archive File Collection in an ODBC or JDBC connection string. (See “Runtime Connection Information” on page 476.)

Conventions

The conventions used to describe these statements are:

KEYWORD

Keywords are shown in uppercase for emphasis, but can be specified in lower or mixed case.

text Variable text is shown in lowercase italics.

[] An optional keyword or argument is shown in bolded square brackets.

{ } A choice of settings from which only one must be selected is shown in bolded curved brackets.

| Separates options.

Data Source Definition

A data source definition is expressed in XML as follows:

```
<DATASOURCE
  NAME='datasourcename'
  TYPE='PST_GDB' READONLY='true'>
  <CONFIG DIRDB='pstdirectoryname'
    { ARCV_FILE='archivefilename' |
      ARCV_GUID='{gggggg}' | ARCV_ID='n' |
      COLLECTION='archivefilecollection' }
    [ PST_AF_SUBSET={ 'AF_IN(n,n,...)' |
      'AF_DATE_RANGE
      (yyyy-mm-dd-hh:mm:ss,yyyy-mm-dd-hh:mm:ss)' |
      'AF_ID_RANGE(x,y)' } ] [ PSTTRACE=COMP (n n ...) [ COMP (n n ...) ] ] />
</DATASOURCE>
```

Syntax

Use the following syntax to define a data source:

<DATASOURCE>

Specifies the name and type of the data source and information required to connect to the data source.

NAME= 'datasourcename'

The data source name, which can be a maximum of 32 characters in length and cannot include hyphens ("-").

TYPE= 'PST_GDB'

The data source driver. The value for the ODM driver is 'PST_GDB'.

READONLY= 'true'

The value for an Archive File or Archive File Collection is 'true.'

<CONFIG>

Specifies configuration properties of a data source.

DIRDB= 'pstdirectoryname'

The name of the Optim Directory in which the Archive File or Archive File Collection is registered.

Standard Optim processing opens the Optim Directory, when reading a configuration file or obtaining Windows registry information. After the Optim Directory is open, the Archive File or Archive File Collection is validated.

ARCV_FILE= 'archivefilename'

The fully qualified Archive File name.

ARCV_GUID= '{gggggg}'

The Archive File GUID. This value is expressed between curved brackets '{ }'.

ARCV_ID= 'n'

The Archive File ID number.

COLLECTION= 'archivefilecollection'

The Archive File Collection name.

PST_AF_SUBSET= 'AF_IN' | 'AF_DATE_RANGE' | 'AF_ID_RANGE'

Subsets an Archive File Collection to specific Archive Files. Use one of the following parameters:

'AF_IN(n,n,...)'

Archive Files to include, where *n* is an Archive File name, GUID, or Archive File ID. If a specified Archive File cannot be found, the process will fail.

'AF_DATE_RANGE (yyyy-mm-dd-hh:mm:ss, yyyy-mm-dd-hh:mm:ss)'

A range of Archive File creation dates. You must include the time of day (hh:mm:ss). You can use zeros to specify the time (e.g., 00:00:00).

'AF_ID_RANGE (x,y)'

A range of Archive File IDs, where *x* is the start and *y* is the end.

PSTTRACE= COMP (n n ...)

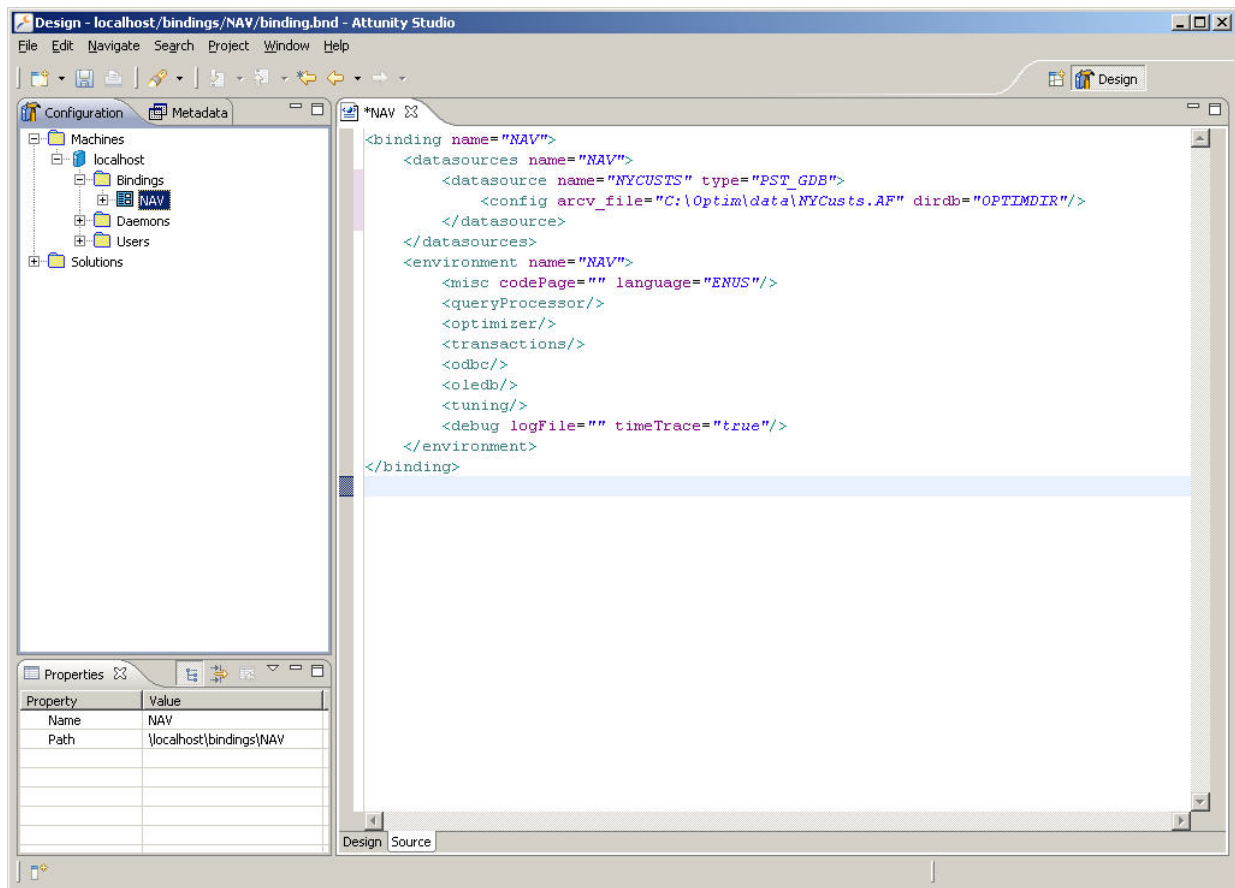
An optional attribute for turning on the Optim Trace file. This attribute should be used at the direction of Optim support. Do not use commas in the PSTTRACE attribute.

Define an ODM data source

This section describes how to define an ODM data source.

To define an ODM data source:

1. In the Attunity Studio Configuration explorer Machines list, expand the primary ODM Server list and the Bindings list to display the NAV member.
2. Right-click the NAV member and select **Open as XML** from the shortcut menu to open the NAV binding editor.
3. Select the **Source** tab.



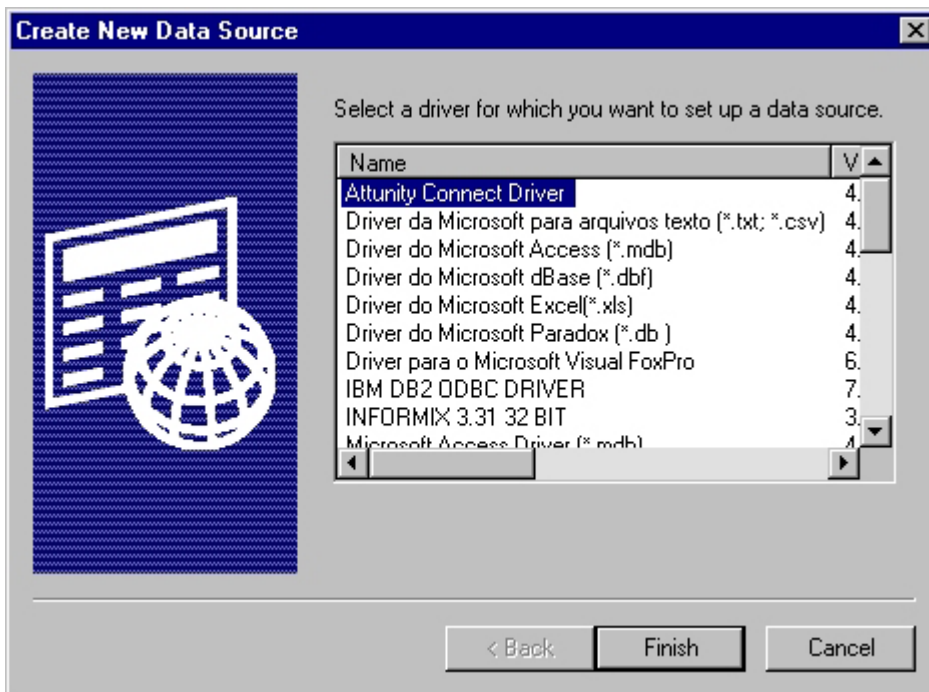
4. Edit the `<datasource>` statement to name the data source.
5. Edit the `<config>` statement to identify an Archive File or Archive File Collection and the Optim Directory in which it is registered.
6. From the **File** menu, select **Save All**.

ODBC Data Source Definition

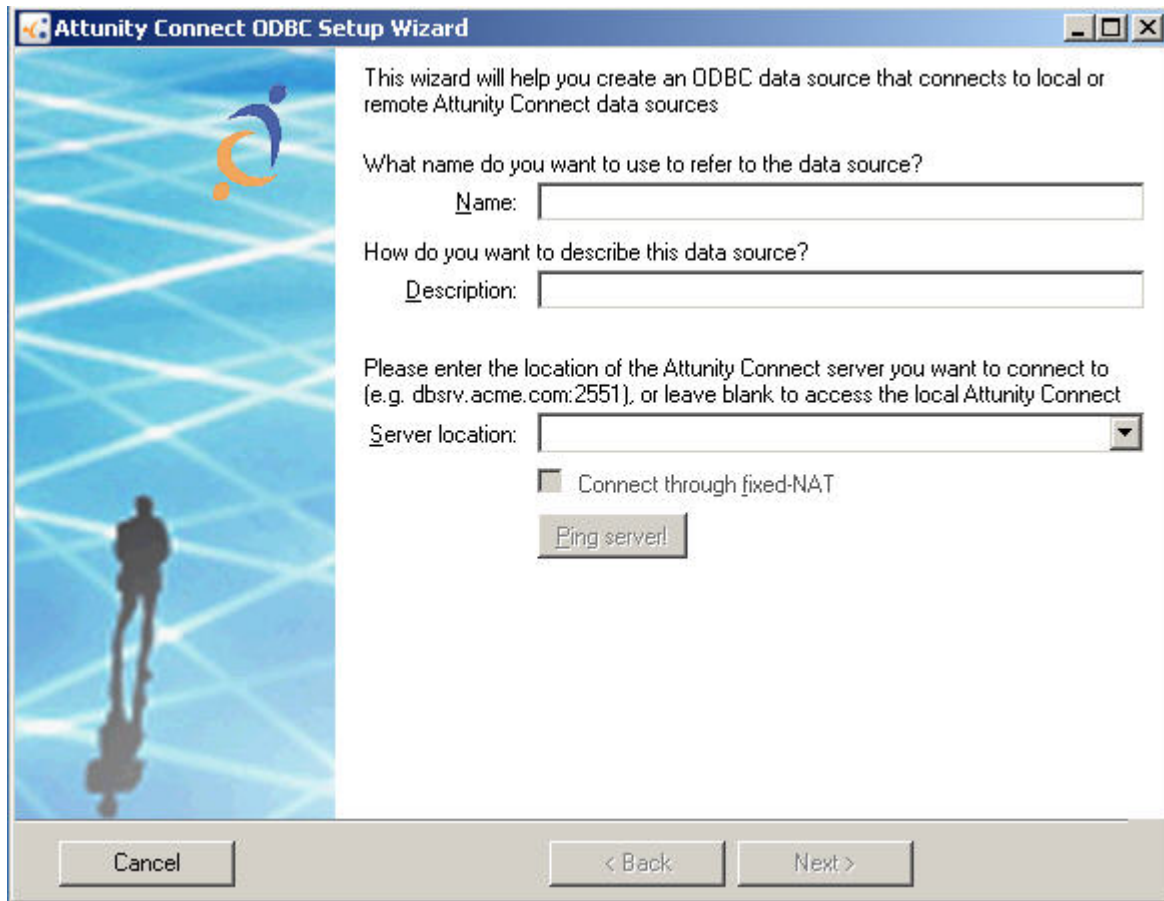
Once the ODM data source shortcut has been created on the secondary ODM Server, you can define the ODBC data source.

To define an ODBC data source on the secondary ODM Server:

1. From the Administrative Tools in the Windows Control Panel, select **Data Sources (ODBC)** to open the ODBC Data Source Administrator dialog.
2. From the **User** or **System** tabs (depending on the data source you want to create), click **Add** to open the Create New Data Source dialog.



3. Select the Attunity Connect Driver, and click **Finish** to open the Attunity Connect ODBC Setup Wizard.



The image shows a Windows-style dialog box titled "Attunity Connect ODBC Setup Wizard". On the left is a vertical panel with a blue background, a network diagram, and a silhouette of a person. The main area contains the following text and controls:

This wizard will help you create an ODBC data source that connects to local or remote Attunity Connect data sources

What name do you want to use to refer to the data source?
Name:

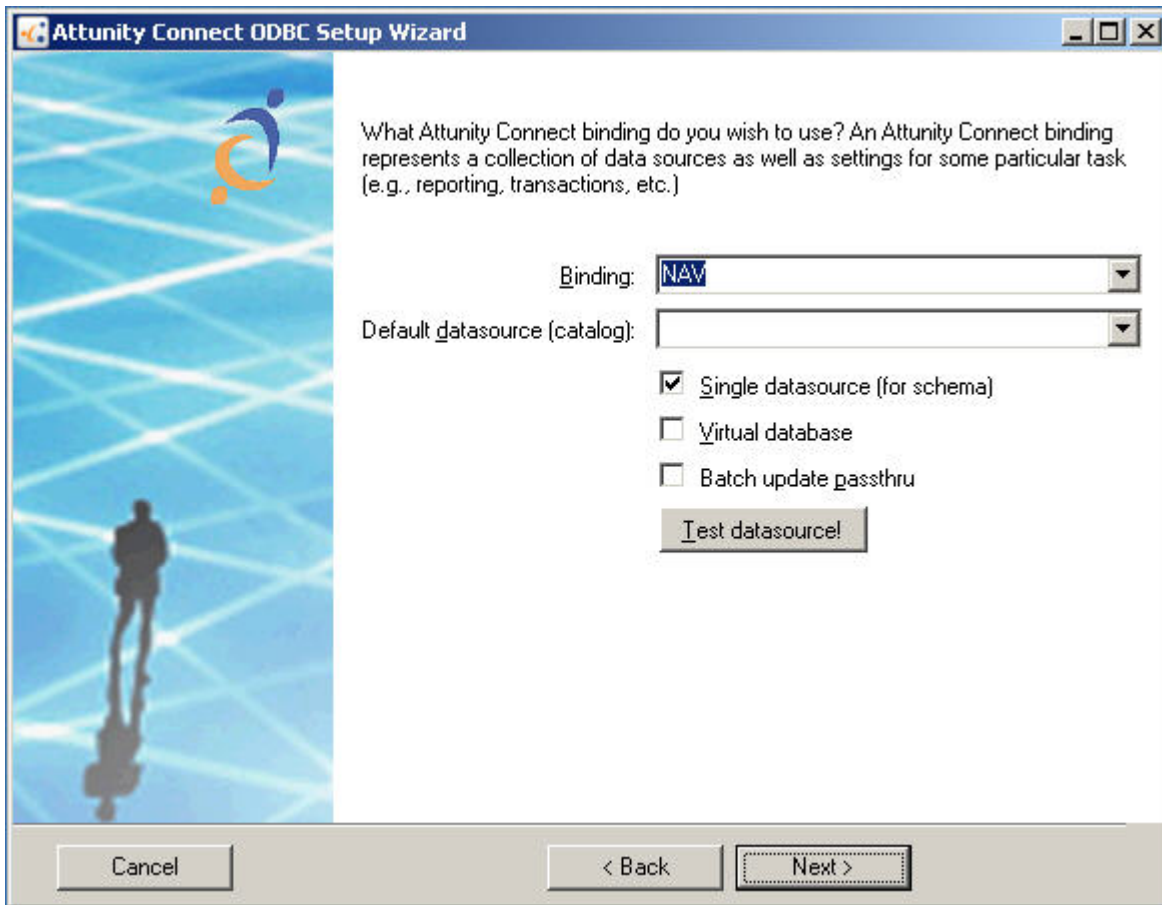
How do you want to describe this data source?
Description:

Please enter the location of the Attunity Connect server you want to connect to (e.g. dbsrv.acme.com:2551), or leave blank to access the local Attunity Connect
Server location:

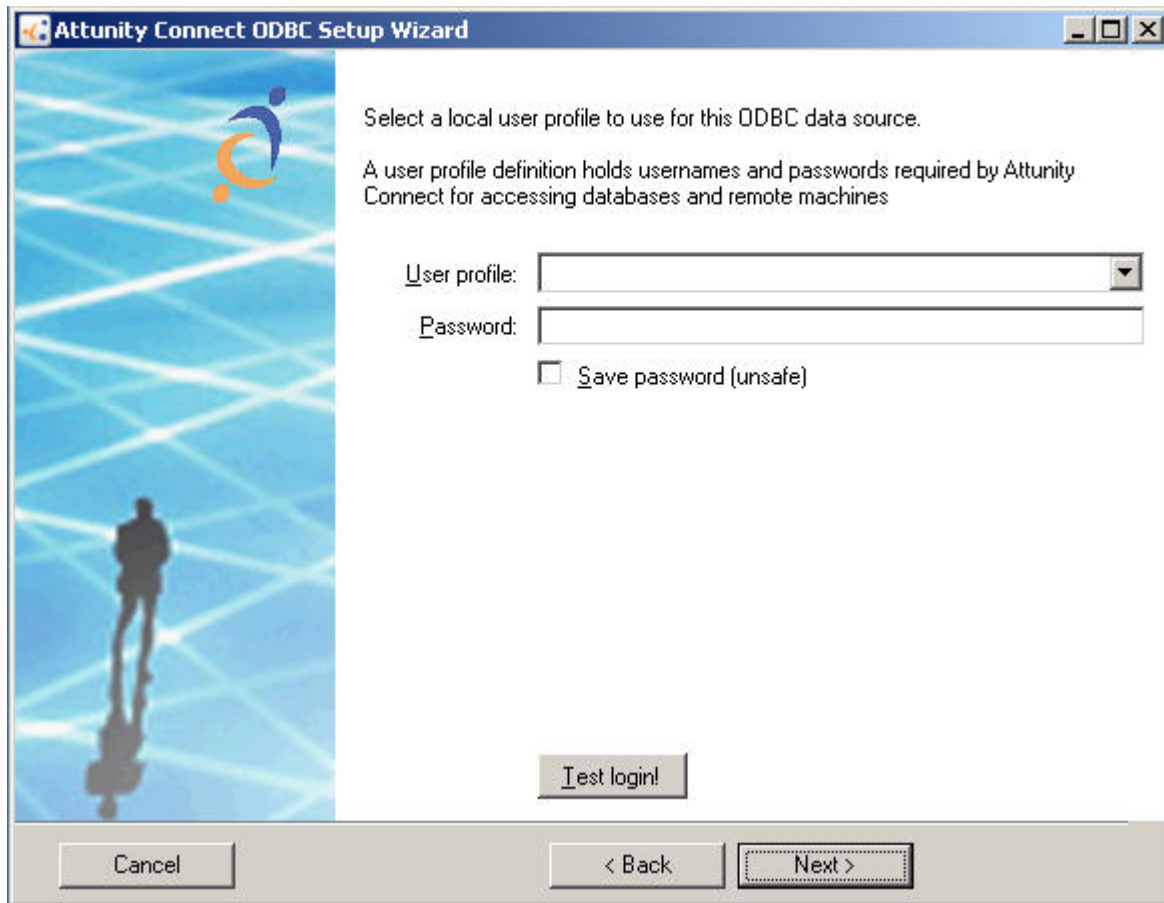
☐ Connect through fixed-NAT

At the bottom are three buttons: "Cancel", "< Back", and "Next >".

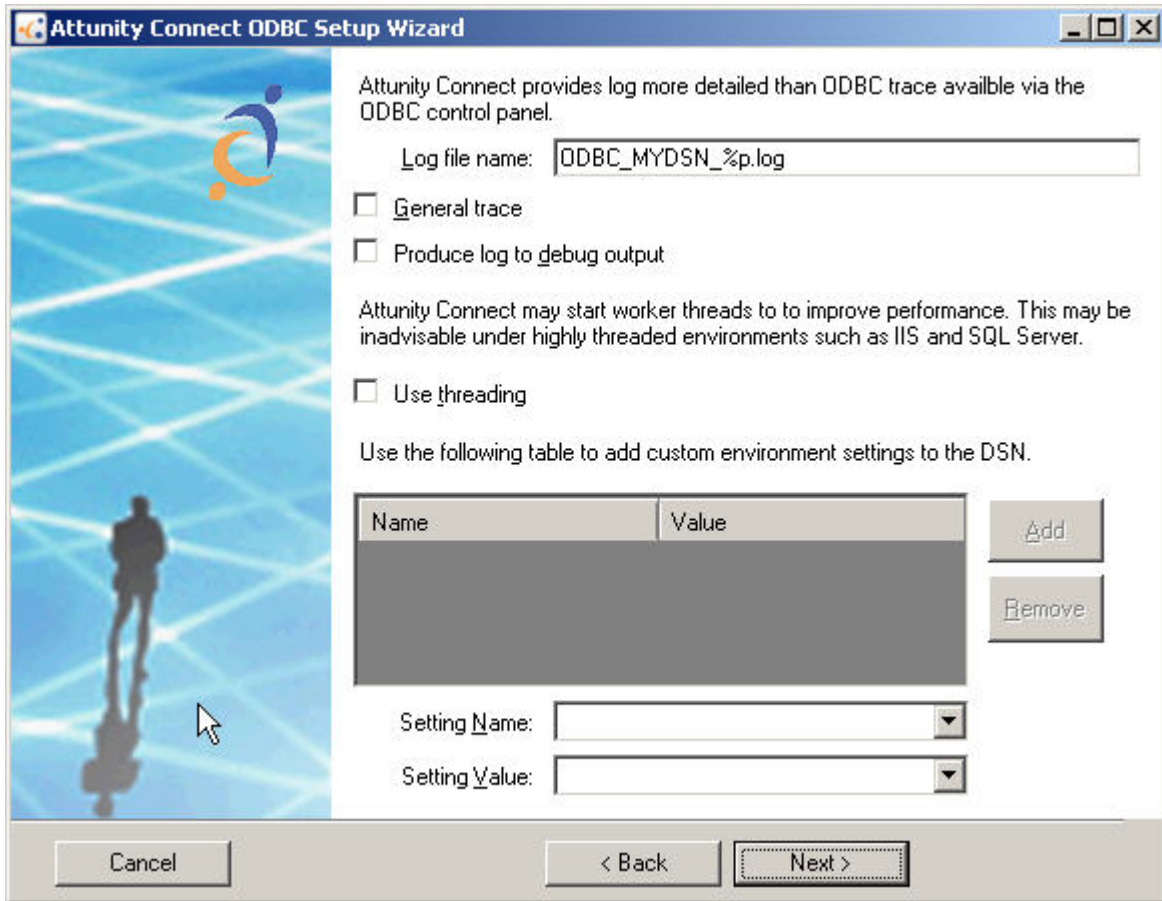
4. In the **Name** field, type the name of your ODBC data source, and click **Next**.



5. Select NAV from the **Binding** list, select the datasource from the **Default datasource** list. Leave the **Single datasource** checkbox checked, and click **Next**.



6. If applicable, select the User profile and enter a Password. Click **Next**.



The image shows the 'Attunity Connect ODBC Setup Wizard' window. On the left is a blue sidebar with a stylized person icon and a silhouette of a person walking. The main area has a light blue background with a grid pattern. The text in the main area reads: 'Attunity Connect provides log more detailed than ODBC trace available via the ODBC control panel.' Below this is a text box for 'Log file name:' containing 'ODBC_MYDSN_%p.log'. There are three checkboxes: 'General trace', 'Produce log to debug output', and 'Use threading', all of which are unchecked. Below the checkboxes is a paragraph: 'Attunity Connect may start worker threads to improve performance. This may be inadvisable under highly threaded environments such as IIS and SQL Server.' Below this is another checkbox 'Use threading' which is also unchecked. Then it says 'Use the following table to add custom environment settings to the DSN.' Below this is a table with two columns: 'Name' and 'Value'. The table is currently empty. To the right of the table are two buttons: 'Add' and 'Remove'. Below the table are two dropdown menus labeled 'Setting Name:' and 'Setting Value:'. At the bottom of the window are three buttons: 'Cancel', '< Back', and 'Next >'. The 'Next >' button is highlighted with a dashed border.

Attunity Connect ODBC Setup Wizard

Attunity Connect provides log more detailed than ODBC trace available via the ODBC control panel.

Log file name: ODBC_MYDSN_%p.log

☐ General trace

☐ Produce log to debug output

Attunity Connect may start worker threads to improve performance. This may be inadvisable under highly threaded environments such as IIS and SQL Server.

☐ Use threading

Use the following table to add custom environment settings to the DSN.

Name	Value
------	-------

Add

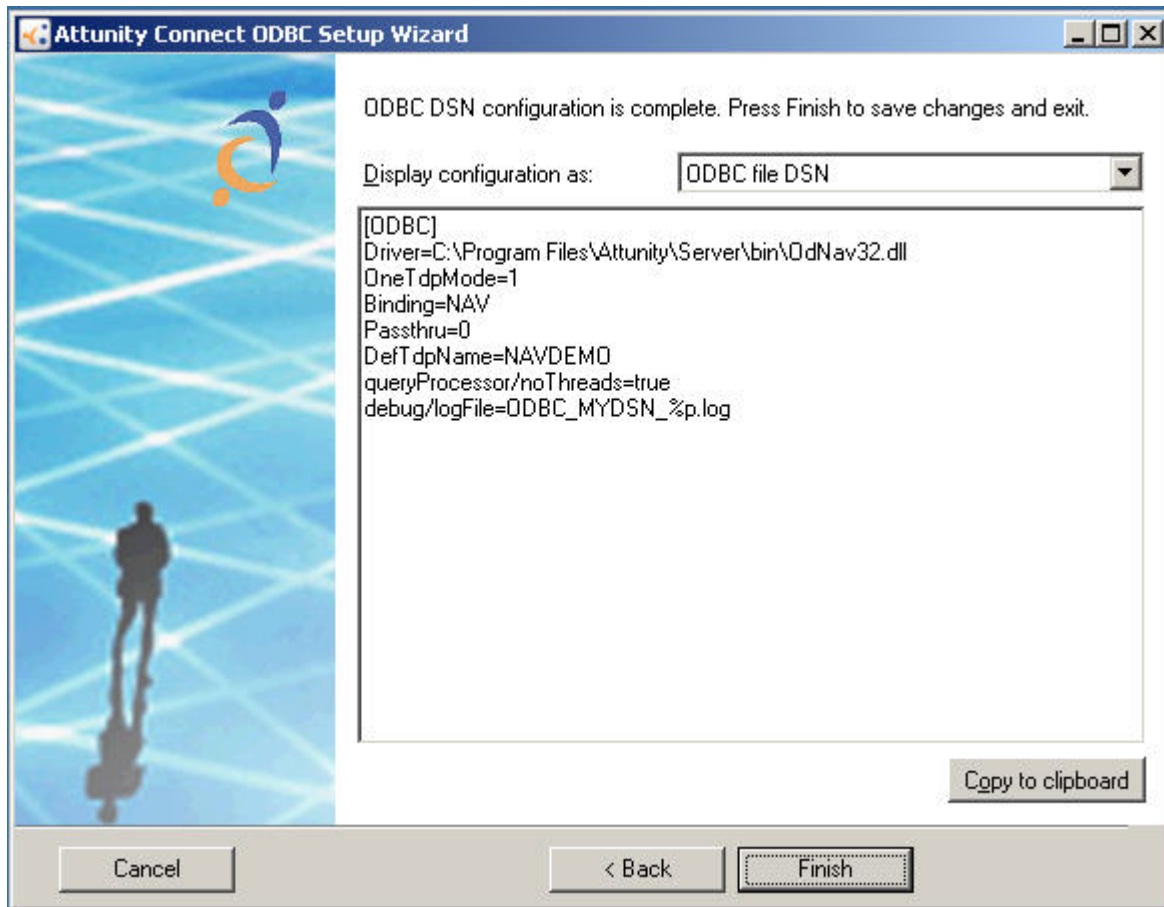
Remove

Setting Name:

Setting Value:

Cancel < Back Next >

7. Use the default value for the **Log file name** and click **Next**.



8. Review the changes, and click **Finish**.

Client Installation and Configuration

ODM is shipped with ODBC and JDBC thin client packages to provide desktop and application connectivity to ODM sources.

The full (thick) installation of Attunity Server includes the installation of the ODBC client regardless of platform. In a Windows environment full installation requires .NET 2.0 framework.

Note: An Attunity license is not required to install the ODBC or JDBC thin client.

ODBC Thin Client

The ODBC thin client is required on each machine that uses ODBC to connect to ODM. To install the ODBC thin client in Windows, run the *AIS-53014-ODBC_Thin_Client-windows.exe* installation file, located in the ODM\Install\Thin Clients\ODBC Thin Clients subdirectory of the Optim installation DVD. For other platforms, the installation file is found in the <DVD_ROOT>/ODM/Install/Thin Clients directory.

For more information on installing the ODBC thin client, refer to the *ThinODBC_installation_530.pdf* file located in the ODM\doc subdirectory of the Windows Optim installation DVD. For more information on ODBC configuration and use, refer to Section 88 of the Attunity Installation Guide located in the *AIS_530_User_Guide_and_Reference.pdf* file in the ODM\doc subdirectory of the Optim installation directory. For non-Windows platforms, documentation is found in the <DVD_ROOT>/ODM/Install/Thin Clients directory.

JDBC Thin Client

The JDBC thin client is required on each machine that uses JDBC to connect to ODM. To install the JDBC thin client, unzip the *Attunity_JDBC_5.3.0.2.zip* installation file, located in the ODM\install subdirectory of the Optim installation directory.

For more information on installing and using the thin client refer to Section 87 of the *Attunity Installation Guide* located in the *AIS_530_User_Guide_and_Reference.pdf* file in the ODM\doc subdirectory of the Optim installation directory.

Secondary Server Configuration

In some ODM deployments, it may be advantageous to deploy more than one ODM server.

As an example, if you have a primary ODM server on a Linux platform, but want to leverage authentication on a Windows platform, a secondary ODM server could be installed on the Windows platform and used to forward authenticated requests to the Linux platform.

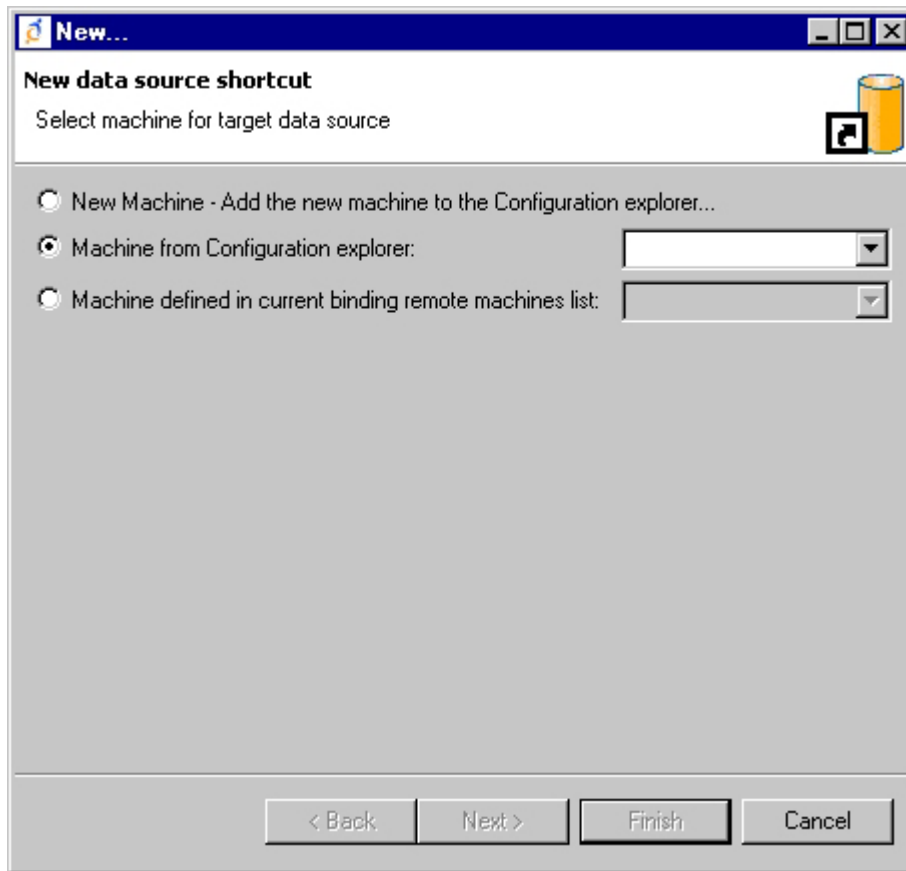
This section describes how to create a secondary server configuration. Before configuring the secondary server, you must define it to Attunity Studio, following the procedures in “Attunity Studio Configuration” on page 456.

Defining Data Sources on the Secondary Server

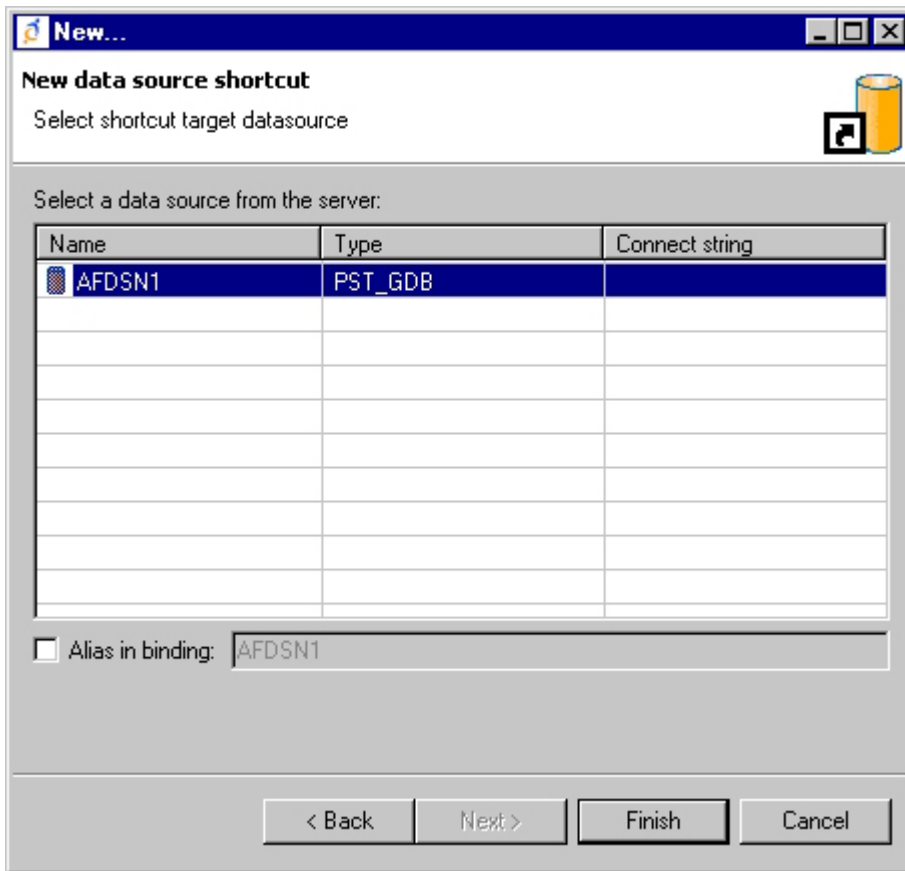
This section describes how to define data sources on the secondary server.

To define data sources on the secondary server:

1. In the Attunity Studio Configuration explorer Machines list, expand the ODM Server list, the Bindings list, and the NAV list to display the Data sources member.
2. Right-click the Data sources member name and select **New data source shortcut** from the shortcut menu to open the New data source shortcut dialog.



3. Select **Machine from Configuration explorer** and then select the primary server from the corresponding list.
4. Click **Next** until the New data source shortcut dialog is displayed.



5. Select the data source from the list and click **Finish**.

ODM Security

This section describes a method for securing an ODM environment.

To secure an ODM environment you must:

- Provide Archive File Security user credentials on the ODM Server for each data source.
- Provide administrative authorization.
- Secure the Attunity daemon.
- Provide user credentials for client server access to the ODM Server.

Credential Definition

All credentials specified for Attunity authentication are operating system credentials of the machine performing the authorization. For Linux, groups as well as individual users are supported. For Windows, groups are not supported and all credentials are based on local users; however, Attunity daemon access can be qualified by domain name (see “Securing the Attunity Daemon” on page 474).

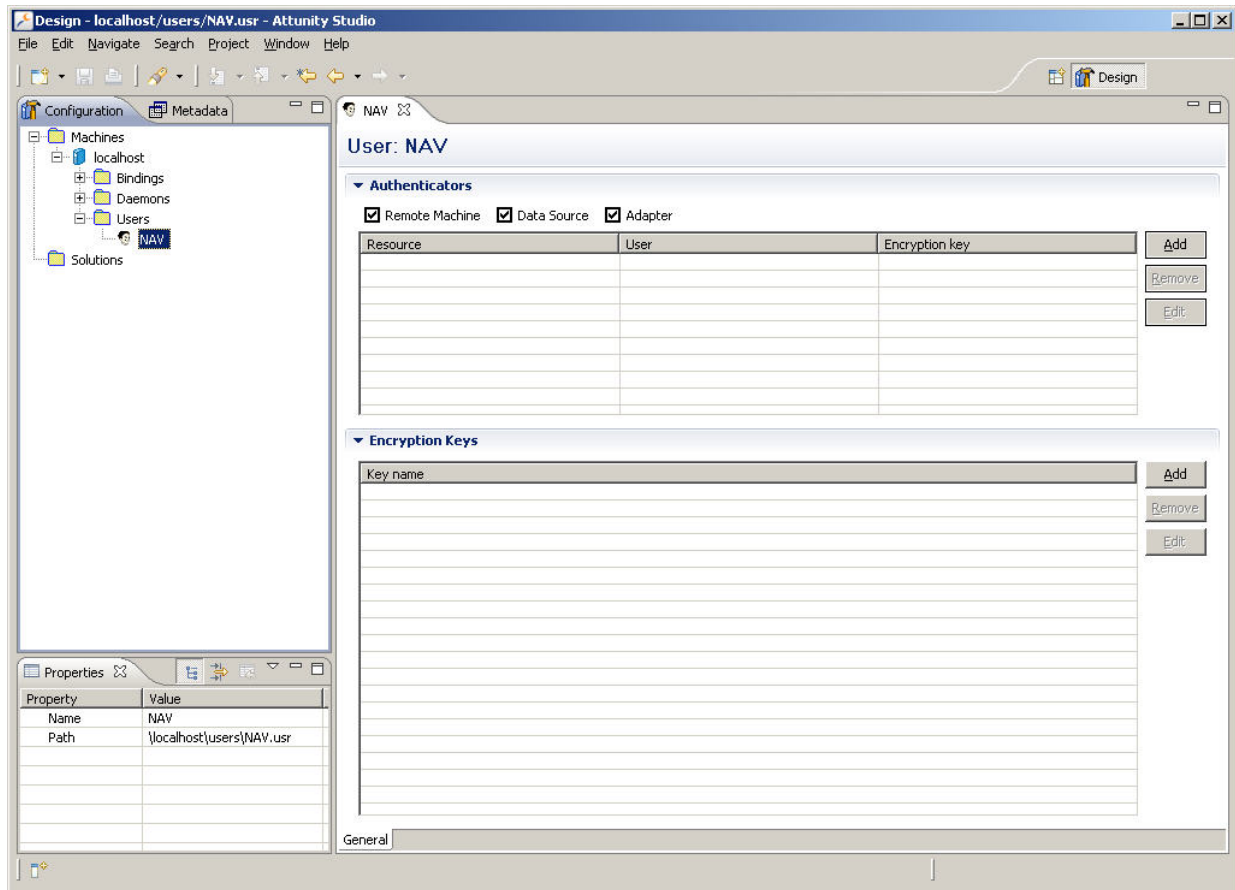
Providing Archive File Security Credentials

Archive File Security user credentials for each data source are assigned to the NAV user profile on the ODM Server.

You can also provide Archive File Security credentials in an ODBC or JDBC connection string. For more information, see “Runtime Connection Information” on page 476.

To provide Archive File Security user credentials:

1. In the Attunity Studio Configuration explorer, expand the server list and the User list to display the NAV member.
2. Right-click the NAV member and select **Open** from the shortcut menu to open the user profile editor.



3. Click **Add** from the **Authenticators** section to open the Add Authenticator dialog.

Add Authenticator

Resource information

Resource type: **Data source**

Resource name:

Authentication information

User name:

Password:

Confirm password:

Network encryption

☐ Encryption key

Key name:

Key:

Confirm key:

OK Cancel

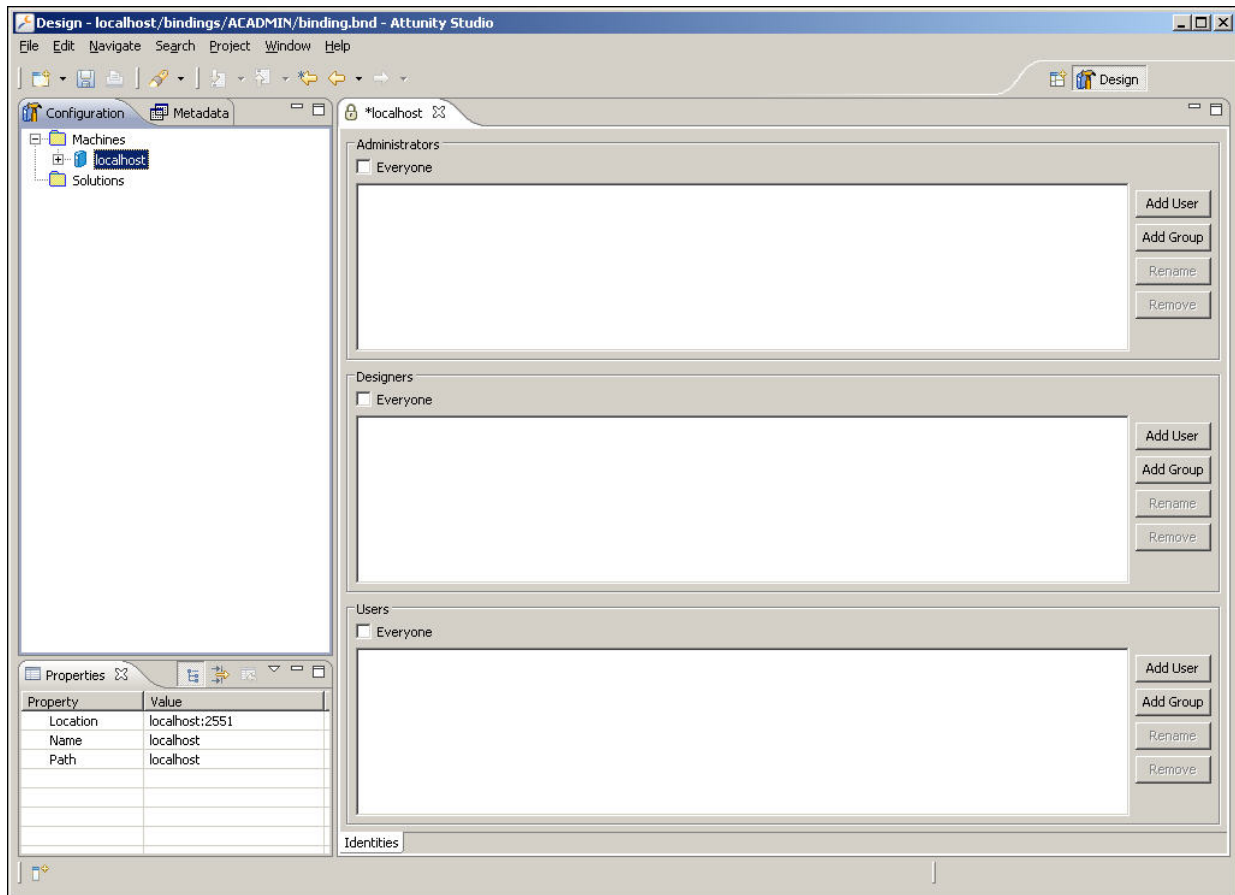
4. In the **Resource type** list, select **Data source**.
5. In **Resource name**, type the data source name or use the browse button to select a name.
6. In **User name**, type the user ID with Archive File Security privileges for the data source.
7. In **Password** and **Confirm password**, type the password for the user name.
8. Click **OK**.
9. From the **File** menu, select **Save All**.

Providing Administrative Authorization for the ODM Server

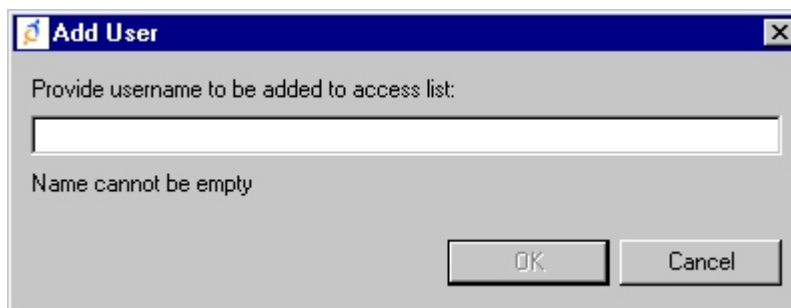
Administrative authorization for an ODM Server controls the ability to modify the server.

To provide administrative authorization:

1. In the Attunity Studio Configuration explorer, right-click the ODM Server name and select **Administration Authorization** from the shortcut menu to open the administration authorization editor.



2. Clear the **Everyone** check boxes.
3. In the **Administrators** section, click **Add User** to open the Add User dialog. (To add a group, click **Add Group**.)



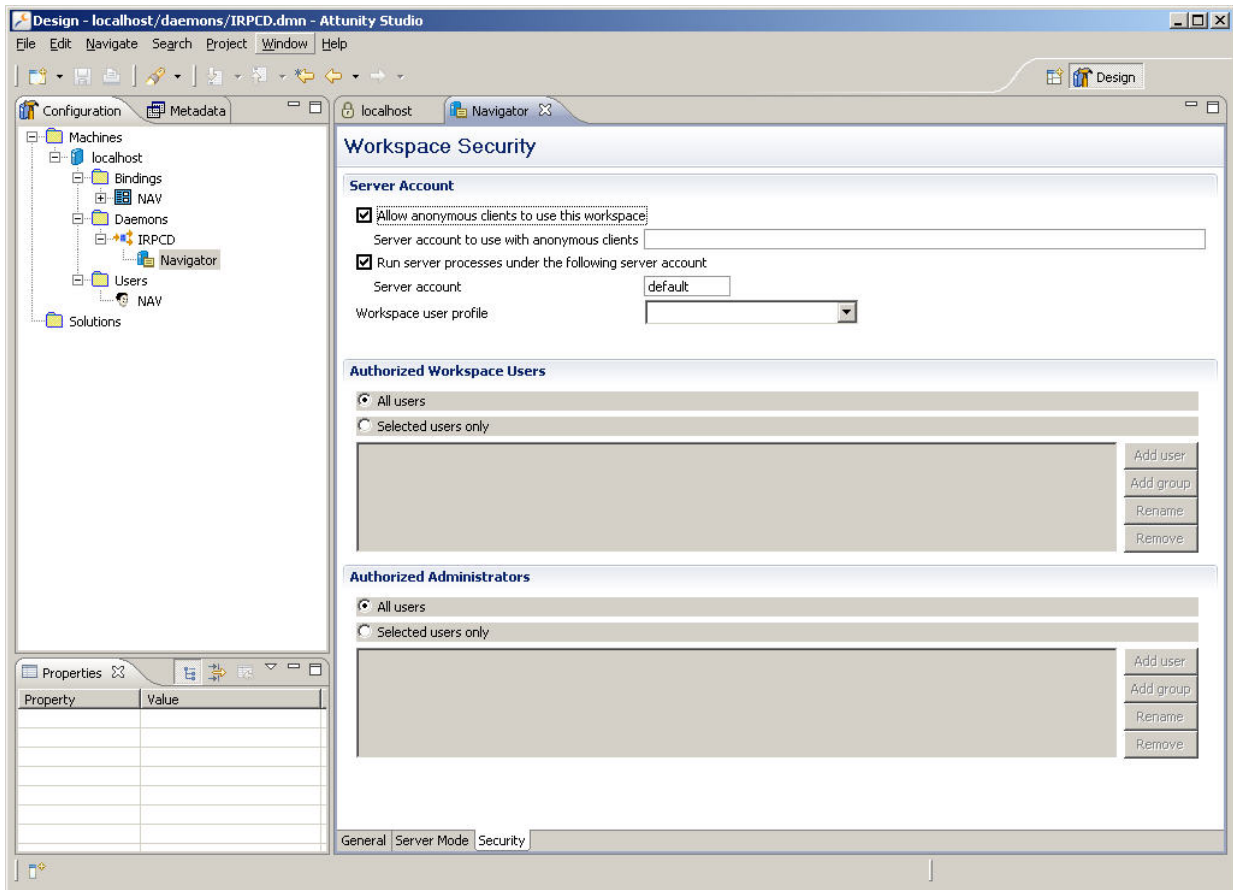
4. Type the user ID or group name that will have administrative privileges for the server.
5. Click **OK**.
6. From the **File** menu, select **Save All**.

Securing the Attunity Daemon

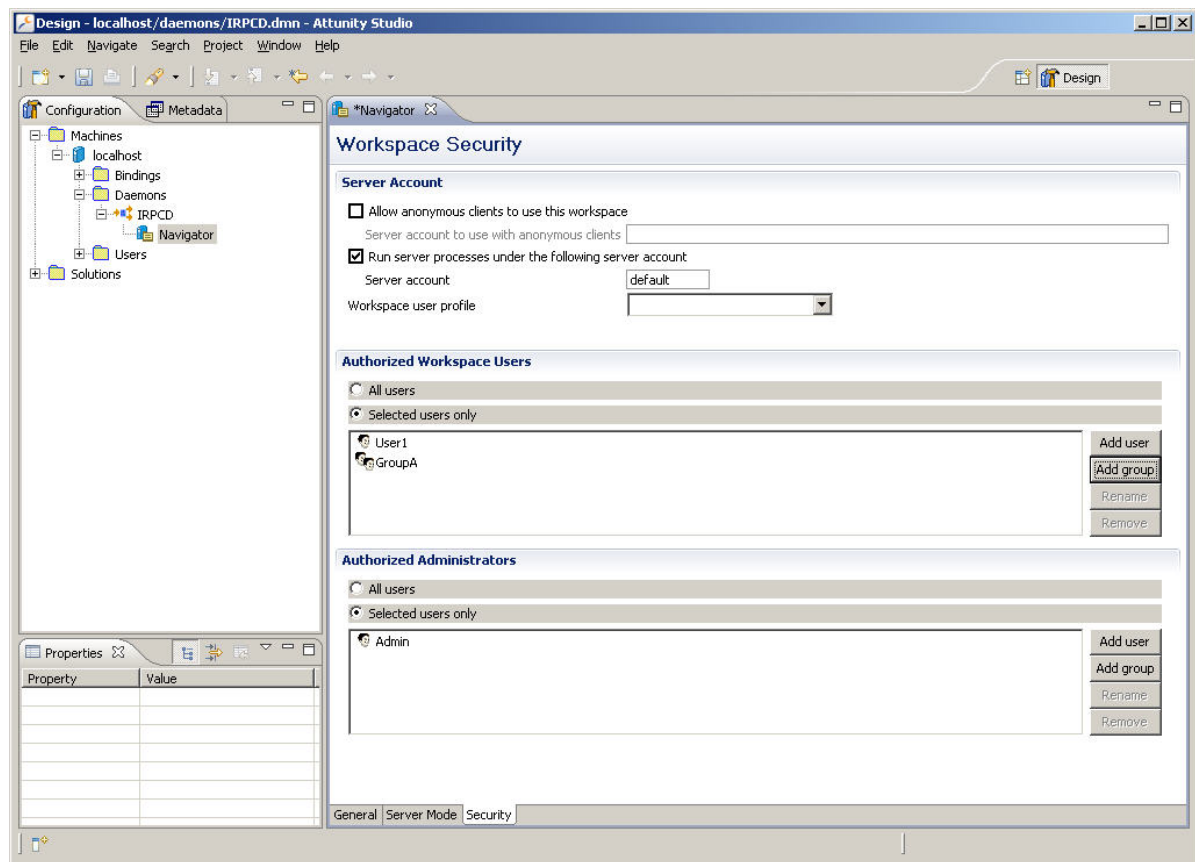
To secure the Attunity daemon, assign machine access and administrator privileges to the daemon. Administrator privileges allow a user to start or stop the daemon. Machine access privileges determine if a user ID and password are required to use the daemon. You must also assign access and administrator privileges to the daemon workspace. These privileges determine the users that can use and administer the workspace.

To secure the Attunity daemon:

1. In the Attunity Studio Configuration explorer, expand the ODM Server list, the Daemons list, and the IRPCD list to display the Navigator member.
2. Right-click the Navigator member and select **Open** to open the daemon configuration editor.
3. Select the **Security** tab.



4. In the Server Account section, clear the **Allow anonymous clients to use this workspace** check box.
5. Authorize workspace users.
 - a. In the Authorized Workspace Users section, select **Selected users only**.
 - b. Click **Add user** to open the Add User dialog. (To add a group, click **Add group**.)
 - c. Type the user ID or group name that will have user privileges for the workspace.
 - d. Click **OK**.
6. Authorize administrators.
 - a. In the Authorized Administrators section, select **Selected users only**.
 - b. Click **Add user** to open the Add User dialog. (To add a group, click **Add group**.)
 - c. Type the user ID or group name that will have administrative privileges for the daemon.
 - d. Click **OK**.



7. From the **File** menu, select **Save All**.

Runtime Connection Information

The *AIS User Guide and Reference* manual, located in the *AIS_530_User_Guide_and_Reference.pdf* file in the ODM\doc subdirectory of the Optim installation directory, specifies the format and contents of the connection strings for ODBC and JDBC.

An Archive File or Archive File Collection specified in the connection string overrides the corresponding specification in the ODM data source definition. If an Archive File or Archive File Collection is not identified in the data source, you must specify an Archive File or Archive File Collection in the connection string.

Connection Parameters

The following are special connection parameters that can be used when connecting to an ODM data source from ODBC or JDBC:

```
DSNCONFIG=datasourcenam1( [ ARCV_FILE=archivefilename |
    ARCV_GUID=gggggg | ARCV_ID=n
    | COLLECTION=archivefilecollection ] ,
    [ PST_AF_SUBSET={ 'AF_IN(n,n,...)' |
        'AF_DATE_RANGE
        (yyyy-mm-dd-hh:mm:ss,yyyy-mm-dd-hh:mm:ss)' |
        'AF_ID_RANGE(x,y)' } ]
    [ PSTTRACE=COMP (n n ...) [ COMP (n n ...) ] ] )
& datasourcenam2(...)
DSNPASSWORDS=datasourcenam=domainname/userID/
password & datasourcenam2=...
QPTDPNAME=primaryservername:daemonportnumber
```


Note: For additional connection parameters, refer to Attunity documentation.

DSNCONFIG= *datasourcename*

The ODM data source name.

ARCV_FILE= *archivefilename*

The fully qualified Archive File name.

ARCV_GUID= *gggggg*

The Archive File GUID.

ARCV_ID=*n*

The Archive File ID number.

COLLECTION= *archivefilecollection*

The Archive File Collection name.

PST_AF_SUBSET= 'AF_IN' | 'AF_DATE_RANGE' | 'AF_ID_RANGE'

Subsets an Archive File Collection to specific Archive Files. Use one of the following parameters:

'AF_IN(*n,n,...*)'

Archive Files to include, where *n* is an Archive File name, GUID, or Archive File ID. If a specified Archive File cannot be found, the process will fail.

'AF_DATE_RANGE (*yyyy-mm-dd-hh:mm:ss, yyyy-mm-dd-hh:mm:ss*)'

A range of Archive File creation dates. You must include the time of day (hh:mm:ss). You can use zeros to specify the time (e.g., 00:00:00).

'AF_ID_RANGE (*x,y*)'

A range of Archive File IDs, where *x* is the start and *y* is the end.

PSTTRACE= *COMP (n n ...)*

An optional attribute for turning on the Optim Trace file. This attribute should be used at the direction of Optim support. Do not use commas in the PSTTRACE attribute.

DSNPASSWORDS= *datasourcename= domainname/ userID/ password*

The user ID and password for Archive File Security authentication. The *datasourcename* is the data source to which the credentials apply. The *domainname* is optional. You can use forward or backward slashes within the parameter. If this parameter is not used, the credentials of the user running the Attunity Server will be used for Archive File Security authentication.

QPTDPNAME= *primaryservername: daemonportnumber*

The primary server name and port number of the Attunity daemon on the primary server. Required when the connection string is passed from a secondary server.

ODM Data Type Conversions

Data type conversions occur when Archive File data is accessed by ODM.

- When code page translation of archived data to UTF-8 is required, character column length may be extended 1.5 times for NCHAR data or 3 times for single-byte character data, up to 32k. However, if the total row size is greater than 32k, ODM may encounter errors when joining or sorting data.
- VARBINARY columns are converted to BINARY columns. The BINARY column data is padded with binary zeros to match the VARBINARY column maximum data length. (For DB2 Linux and Windows the data is padded with ASCII spaces, x'20'.)
- For MONEY, DECIMAL, or NUMERIC columns, if scale=0, these data types are converted to int2 or int4. If precision <=31 and both scale>=0 and scale<=precision, these data types are converted to NUMERIC(p,s), otherwise they are converted to BINARY_DOUBLE.
- NCLOBs are converted to CLOBs.
- For Oracle, NUMERIC columns without precision are converted to BINARY_DOUBLE. Timestamps (including TZ and LZ) are converted to ODBC timestamps.

- For Oracle and Informix, time intervals are converted to VARCHAR(30).
- For DB2 Linux and WINDOWS, LONGVARCHAR, LONGVARBINARY and LONGVARGRAPHIC columns are converted to CLOBs or BLOBs.

Archive File to XML Convertor

Use the Archive File to XML Convertor to convert Archive File data to XML format. You can identify the data to convert by typing SQL SELECT statements or using a batch file. You can also create a file that includes an XML schema describing Archive File data.

The Archive File to XML Convertor requires Java JRE release 1.4 or later. To open the Archive File to XML Convertor, run the *atoxml.jar* executable file, located in the ODM\java subdirectory of the Optim installation directory.

For batch and command line documentation, refer to the Archive File to XML Convertor online help, available from the **Help** menu.

Interactive Tab

Use the **Interactive** tab to type an SQL STATEMENT that specifies the data to convert.

Parameters

Server The machine name of the ODM Server, followed by a colon ":" and the port number. If the default port number (2551) is used, the port number can be omitted.

Data Source
The data source for the Archive File.

Maximum Rows

The maximum number of rows to convert to XML.

Root Name

The name of the root XML tag.

Rowset Name

The name of the XML tag in which the data is placed.

Generate**Schema**

Select this check box to include XML schema of the Archive File data with the output XML.

XML Select this check box to include Archive File data with the output XML.

Mode**Element**

Select this check box to generate an XML tag for each data value.

Attribute

Select this check box to generate <row> tag attributes for each data value.

Execute

Click to begin the conversion process.

SQL Select

Type an SQL SELECT statement to specify selection criteria for the data.

Messages

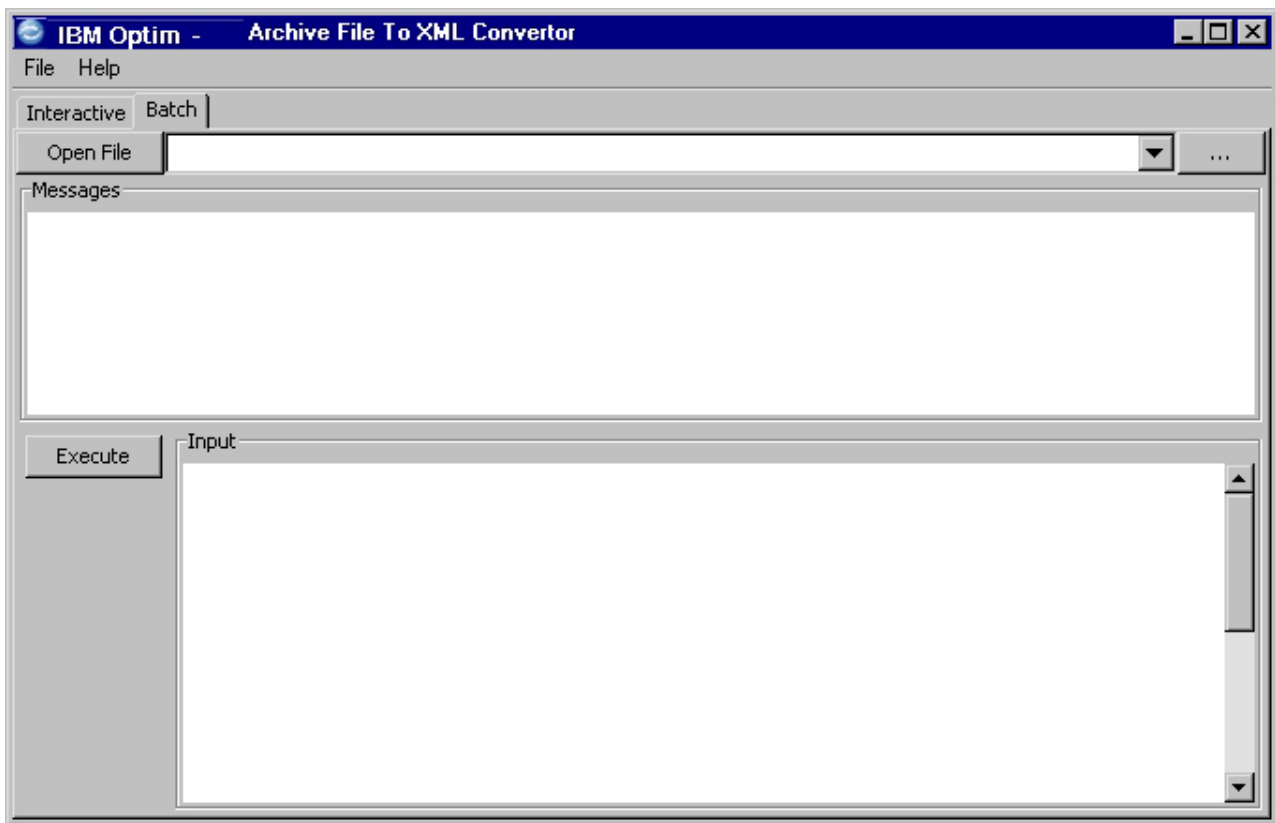
Displays messages for the conversion process.

Output

Displays the XML output.

Batch Tab

Use the **Batch** tab to specify the data to convert by using a batch file or typing batch parameters.



Open File

Click to select a batch input file.

Messages

Displays message for the conversion process.

Execute

Click to execute the batch process.

Input Type the batch parameters, if a batch input file is not used.

Conversion Issues

The following issues arise in the conversion of archived data to XML:

- Characters that are not legal in XML, including characters less than x'20' (except for carriage return, linefeed, and tab), are replaced by a '?'. A diagnostic is written when this occurs.
- CLOBs (character large objects) are written as single long lines.
- Binary data is encoded as base64 data and written as single long lines.
- Null columns are omitted in attribute mode and indicated by `xsi:nil="true"` in element mode. Note that because of a limitation in the Attunity interface, null large objects are given zero length; they are not marked explicitly as null.
- Characters in the first column of the following table are translated to the entity reference in the second column:

Character	Entity Reference
"	"
&	&
'	'
<	<
>	>

Archive File Collections

An Archive File Collection is a list of Archive Files that can be logically unioned together as a single data source for ODM access. For example, ODM uses an Archive File Collection to provide access to data in multiple Archive Files, even if all files do not include a specific table or column or if the attributes of data in a column vary from file to file.

ODM processes Archive Files in the order they are listed in the Archive File Collection Editor. For information about creating Archive File Collections, refer to the *Archive User Manual*.

Unioned Tables

Tables with matching creator IDs and names in separate Archive Files will be unioned. To be processed, a table need not exist in every Archive File. ODM is not case-sensitive. ODM does not use DB Aliases; however, an Archive File cannot have two tables with matching creator IDs and names but different DB Aliases.

Matching tables are not required to have the same columns. The union will include all column names in the matching tables. Rows from a table that do not include a column found in another table will use a default value such as NULL, a default date specified in the Archive File Collection Editor, or an appropriate data type (spaces, zero, etc.).

Column Compatibility

All columns with the same name that are in tables with matching creator IDs and names must have compatible attributes. If columns have different but compatible attributes, a compatible attribute will be used for those columns. The column compatibility rules for the Compare Process apply to Archive File Collections. For information about comparison compatibility rules, refer to the *Common Elements Manual*.

For example, columns COLX DECIMAL(8,2) and COLX DECIMAL(10,0) will become COLX DECIMAL(10,2).

If a compatible attribute cannot be found (e.g., COLX INTEGER and COLX TIMESTAMP), the Archive File Collection Editor will display an error message.

Unioned Indexes

Archive Indexes for unioned tables may also be unioned. The following rules apply to unioned indexes:

- Each Archive File that includes the table must also include the index.
- ODM will use a unioned index until a column with a different name or attribute is found (compatible attributes are not used). The unique column and remaining columns in the index will not be processed.

Archive File Security

If Archive File Security denies you access to a table or a column in table, no rows are retrieved from the table.

Archive File Collection Subsets

You can specify a subset of files in an Archive File Collection using a data source definition, connection string, or SQL WHERE clause.

See “Define the Data Source on the ODM Server” on page 460 and “Runtime Connection Information” on page 476.

The PST_AF_SUBSET pseudocolumn is logically added to each archived table during ODM processing and allows you to create a subset using an SQL WHERE clause. Use the following syntax:

PST_AF_SUBSET='AF_IN(*n,n...*)' | 'AF_ID_RANGE(*x,y*)' | 'AF_DATE_RANGE(*yyyy-mm-dd-hh:mm:ss*,
yyyy-mm-dd-hh:mm:ss)'

'AF_IN(*n,n...*)'

Archive Files to include, where *n* is an Archive File name, GUID, or Archive File ID.

'AF_ID_RANGE(*x,y*)'

A range of Archive File IDs, where *x* is the start and *y* is the end.

'AF_DATE_RANGE (*yyyy-mm-dd-hh:mm:ss*, *yyyy-mm-dd-hh:mm:ss*)'

A range of Archive File creation dates. You must include the time of day (hh:mm:ss). You can use zeros to specify the time (e.g., 00:00:00).

The subset criteria can only be specified once in an SQL statement. If subset criteria is specified in the data source or connection string, the WHERE clause subset must be a subset of that criteria.

PST_ARCHIVE_ID Pseudocolumn

The PST_ARCHIVE_ID pseudocolumn is logically added to each archived table during ODM processing and contains the Archive File ID of the Archive File that includes the table. Use PST_ARCHIVE_ID to specify the Archive File from which a row is selected.

For example, you can use PST_ARCHIVE_ID to control a join by avoiding duplicate rows from a table in multiple files in the Archive File Collection. If the DETAILS table is related to the ITEMS table, and only the DETAILS table is unique across all files in the collection, then a join between the tables would result in duplicate ITEMS rows joined with DETAILS rows. To avoid duplicate rows, use the following syntax:

```
SELECT * FROM PST.DETAILS, PST.ITEMS
WHERE
PST.DETAILS.ITEM_ID=PST.ITEMS.ITEM_ID
AND
PST.DETAILS.PST_ARCHIVE_ID=PST.ITEMS.PST_ARCHIVE_ID
```

PST_ARCHIVE_FILES Table

An Archive File Collection includes a table named PST_ARCHIVE_FILES, which contains a row for each Archive File in the collection.

PST_ARCHIVE_FILES has the following columns:

Column Name	Data Type	Description
ARCHIVE_ID	INTEGER	Archive File ID
GUID	CHAR(40)	Archive File GUID
ARCHIVE_FILE_NAME	VARCHAR(256)	Archive File name
ARCHIVE_DATETIME	TIMESTAMP	Archive File creation date and time

You can use this table to query context data from the Archive Files in the collection. For example, use the following syntax to find the latest Archive File ID:

```
SELECT MAX(ARCHIVE_ID) FROM PST_ARCHIVE_FILES
```

Recovery From A Failed Upgrade

This section details steps to restore an Attunity installation that was part of an ODM install in the event that the upgrade failed to preserve existing configurations.

After upgrading Attunity Server to version 5.3, testing the data sources may fail or produce unexpected results. Data sources that use advanced features from Attunity Server version 4.8 that are not included in version 5.3 may result in errors or missing metadata. To fix this problem, you can downgrade from Attunity version 5.3 to version 4.8. It is recommended that the following procedure to restore to the previous configuration be used only as a last resort.

1. Stop the daemon.
 - a. Right-click **My Computer** and select **Manage**.
 - b. Expand the **Services and Applications** section and select **Services**.
 - c. Right-click **Attunity Server**, and select **Stop**
2. Uninstall the Attunity Server that did not upgrade correctly. Ensure that all directories and files have been removed and, if required, delete any remaining directories and files.
3. Reinstall Attunity Server version 4.8 to the location used prior to the upgrade.
4. Replace the <NAVROOT>/Def directory with the new directory that was backed up during the upgrade process. This backup file is located in C:\Program Files\Attunity\AIS_BackUp on a Windows machine, and on \$PSTHOME/ODM/AIS_BackUp on UNIX.
5. Start the IRPCD daemon.
 - a. Right-click **My Computer** and select **Manage**.
 - b. Expand the **Services and Applications** section and select **Services**.
 - c. Right-click **Attunity Server**, and select **Start**.

Attunity Server version 4.8 is now installed with the previous configuration. If the previous configuration continues to have problems contact IBM Software Support.

Appendix G. Converting PST and Optim Directory Objects

All PST Directories created prior to version 6.0 of the Princeton Softech products, Archive and the Relational Tools, require a conversion to be compatible with later versions. Additionally, any Optim Directory created prior to Optim version 6.2 on an SQL Server database must be converted.

Use the Configuration program to convert Optim Directories and objects. After the Conversion Process, your “old” PST Directory and objects remain intact and can still be used with the Optim products.

Version 5.x PST Directories

PST Directory objects created using version 5.x of Archive or the Relational Tools must be converted into a format suitable for use with version 6.0 or later. Use the Conversion Process in the Configuration program to migrate objects from an old (5.x) PST Directory to a Directory compatible with version 6.0 or later.

You can convert and migrate the following objects: Access Definitions, Table Maps, Column Maps, Column Map Procedures, Primary Keys, DB Aliases, Relationships, Calendars, Currency Definitions, Storage Profiles, process requests, Archive File Directory entries, and File Access Definitions.

Note: When running setup, select the **5.x PST Directory Conversion** component to install files required for converting PST Directory objects.

The Conversion Process consists of three steps, which must be completed in the order listed.

1. Create a new Optim Directory. This step can be completed prior to running the Conversion Process, if desired, using commands available from the **Tasks** menu.

Note: If you create a new Directory before using the Conversion Process, note the following:

- If Object Security is applied to a 6.0 Directory before you convert 5.x objects, you can automatically secure converted objects. Automatically securing objects may be more convenient than securing each object manually. For more information, see “Automatically Associate an Object with an ACL” on page 406.
 - If Functional Security is enabled for the 6.0 Directory, you must have the create privilege for the objects you are converting. For more information, see “Functional Privileges Tab” on page 397.
2. Export objects from the old PST Directory to an Export File.
 3. Import objects from the Export File to the new Optim Directory. You can complete this step from any workstation having access to the new Optim Directory and Export File.

If you have upgraded your DBMS, or if imported DB Aliases reference a DBMS version that is no longer supported by Optim, you must run the Update the DBMS Version for a DB Alias configuration task after converting the PST Directory.

Version 6.0/6.1 PST Directories on SQL Server

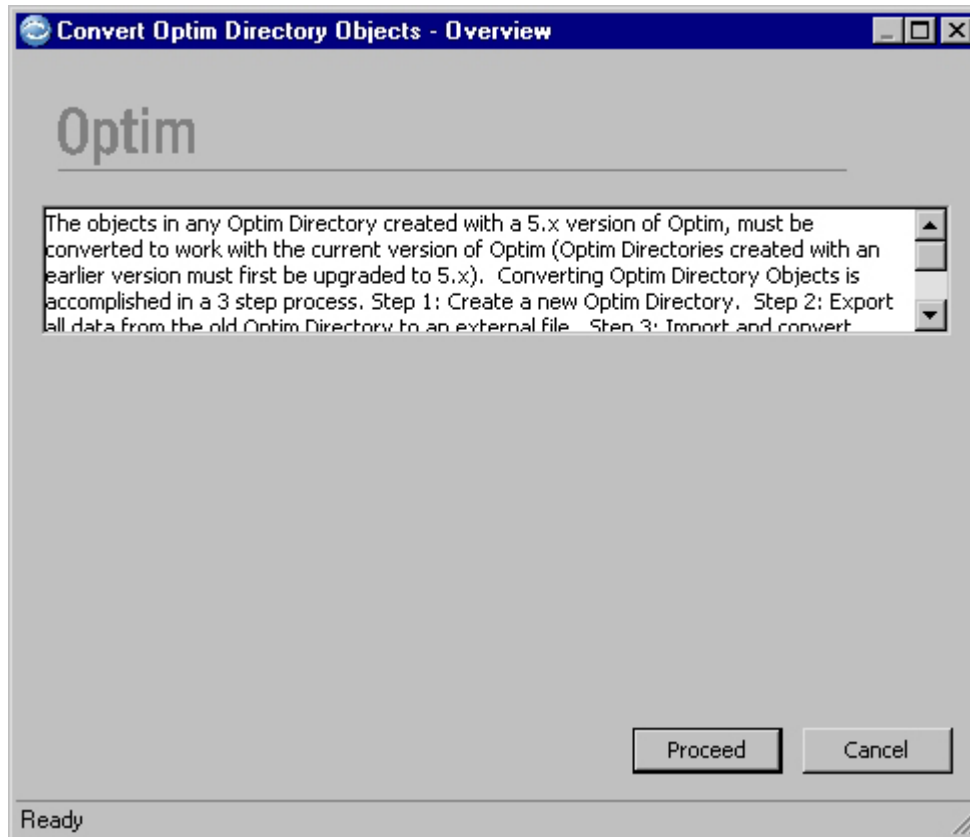
PST Directory tables created with the Princeton Softech product versions 6.0/6.1 in an SQL Server database must be converted to accommodate Unicode support in later versions of Optim. The Directory conversion process will copy data in 6.0/6.1 Directories to new Directory tables. The new and old Directories will have the same name and PST object definitions. After the Directory is converted, you can still use the old Directory tables with the Princeton Softech product versions 6.0/6.1, or you can drop the 6.0/6.1 Directory.

Conversion Process for 5.x Optim Directories

The Configuration program presents a series of dialogs that provide instructions to guide you through each step of the Conversion Process. During the process, you make selections appropriate to your particular site and circumstances.

Note: Refer to “Dialogs” on page 67 for details on options that are common to the configuration dialogs.

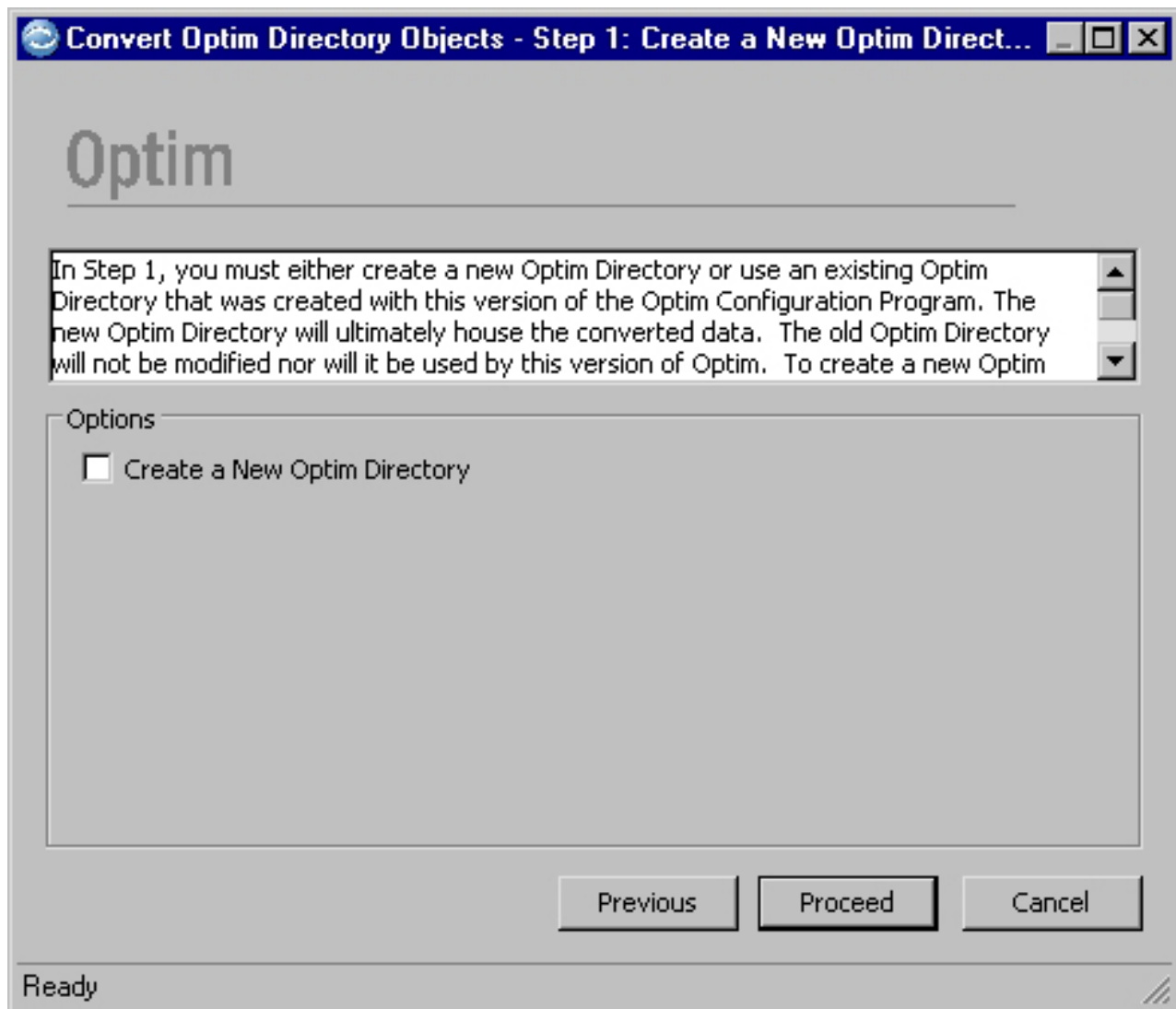
To begin the process, select **Convert Optim Directory Objects** from the **File** menu. The first window is the Overview dialog.



Click **Proceed** to continue.

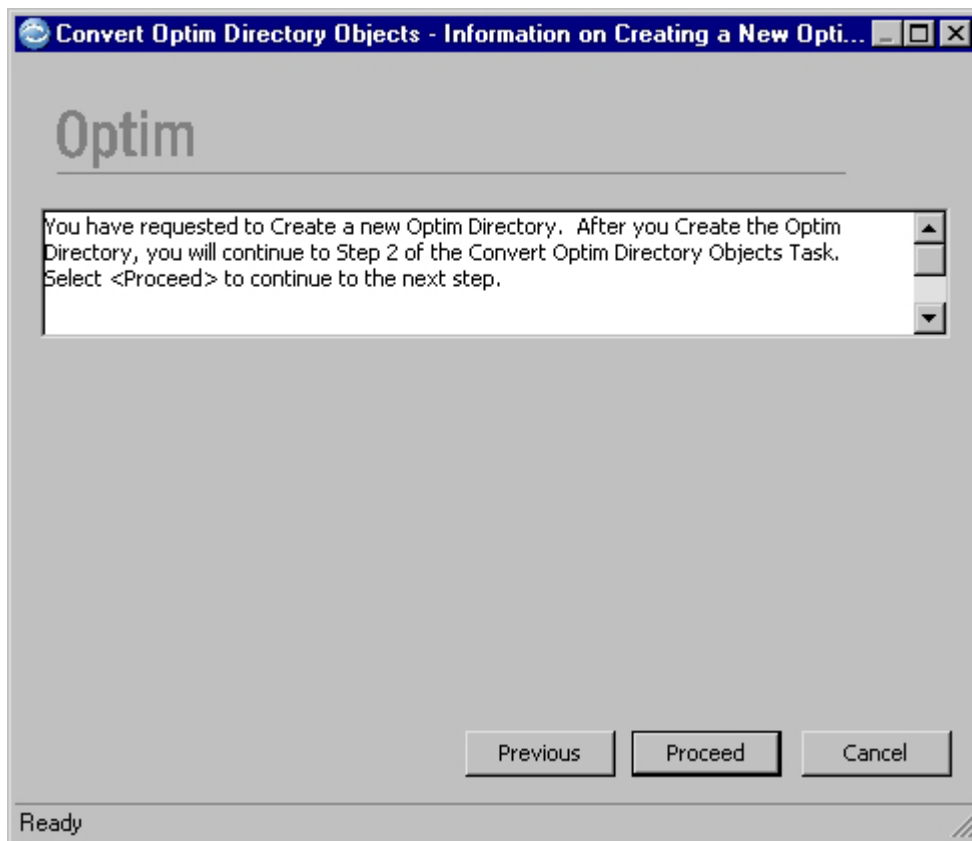
Step 1: Create a New Optim Directory

The next dialog prompts you to create a new Optim Directory. This Directory will store objects exported from the old Directory.



If you created the new Optim Directory earlier, leave the check box blank and click **Proceed** to display the Export Data from an Old Optim Directory? dialog, discussed in "Step 2: Export Data from Old Optim Directory" on page 490.

To create a new Optim Directory, however, select the **Create a New Optim Directory** check box and click **Proceed** to display the Information on Creating a New Optim Directory dialog.



From this point, the task is similar to creating an Optim Directory when configuring the first workstation. These steps are described briefly in the following paragraphs. For further details, refer to “Create Optim Directory” on page 72.

Specify Optim Directory

The first step in creating a new Optim Directory is to provide the name of the Optim Directory. The Configuration program prompts for this information by presenting the Specify Optim Directory dialog. You must select **Create New Optim Directory and Registry Entry** and specify a Directory name.

Note: The name of the new Directory must be different from the name of the old Directory.

Specify Optim Directory DBMS

You must then specify the database in which to create the new Optim Directory tables. On the Specify Optim Directory DBMS dialog, specify the type and version of DBMS software, and optionally, provide a description of the Optim Directory.

Connect to Database

The Configuration program must connect to the database in order to create the new Optim Directory tables and packages, plans, or procedures. To enable this connection, you must enter a valid User ID, Password, and Connection String on the Connect to Database dialog. This User ID must have authorization to create tables and catalog stored procedures or bind packages.

Create Optim Directory Tables

After the workstation is connected to the database, you can create the Optim Directory. The Configuration program names the tables automatically, but you can specify the identifier (Creator ID, Owner ID, or Schema Name) and the database tablespace for each table. The Create Optim Directory Tables dialog prompts you for the information needed to create these tables.

Create/Drop Packages

Before creating packages, plans, or procedures for the Optim Directory tables, the Configuration program displays the Create/Drop Packages, Create/Drop Stored Procedures, or Bind/Drop Plans dialog, depending on the DBMS selected for the Directory. You can choose to browse the SQL statements generated to create or refresh the packages, plans, or procedures.

Keep Optim Directory Data in Unicode Format

If you are creating a new Optim Directory in a DBMS for which Optim provides Unicode support, you are prompted to indicate whether the DBMS is configured to store Unicode data.

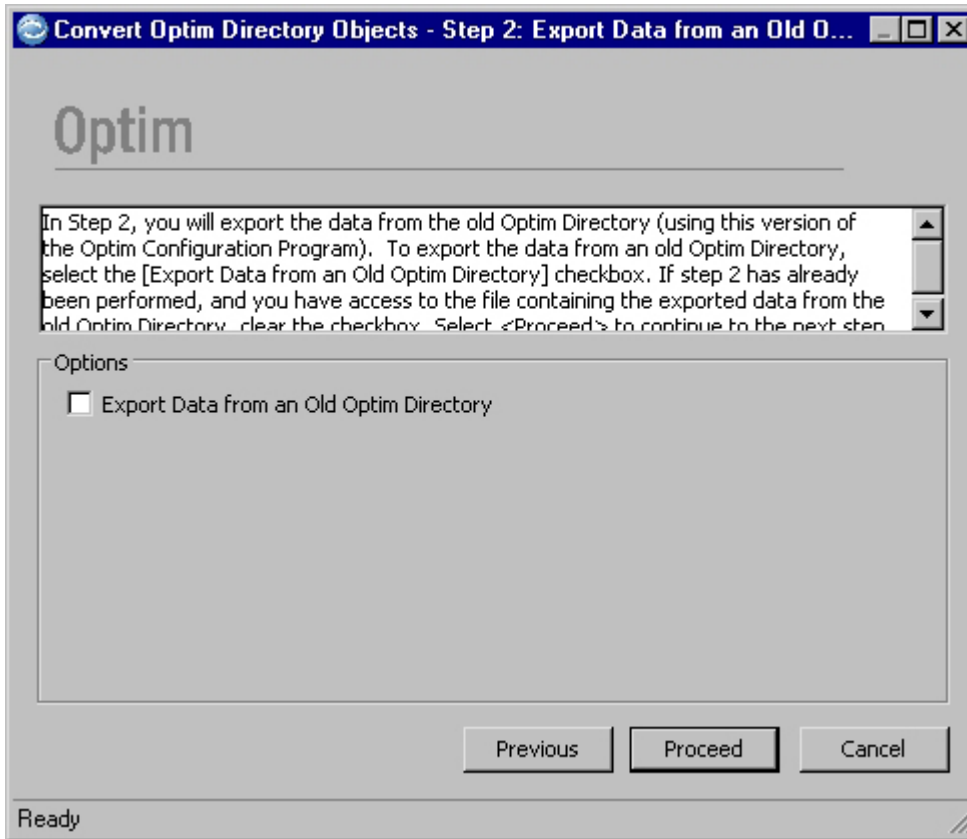
Connect to Database

The Configuration program creates a Windows registry entry used to access the Optim Directory. For subsequent access to the Directory from this workstation, you can use the Connect to Database dialog to specify a User ID and Password different from those used to create the Directory.

After you have created the new Optim Directory, the Conversion Process displays the Export Data from an Old Directory dialog.

Step 2: Export Data from Old Optim Directory

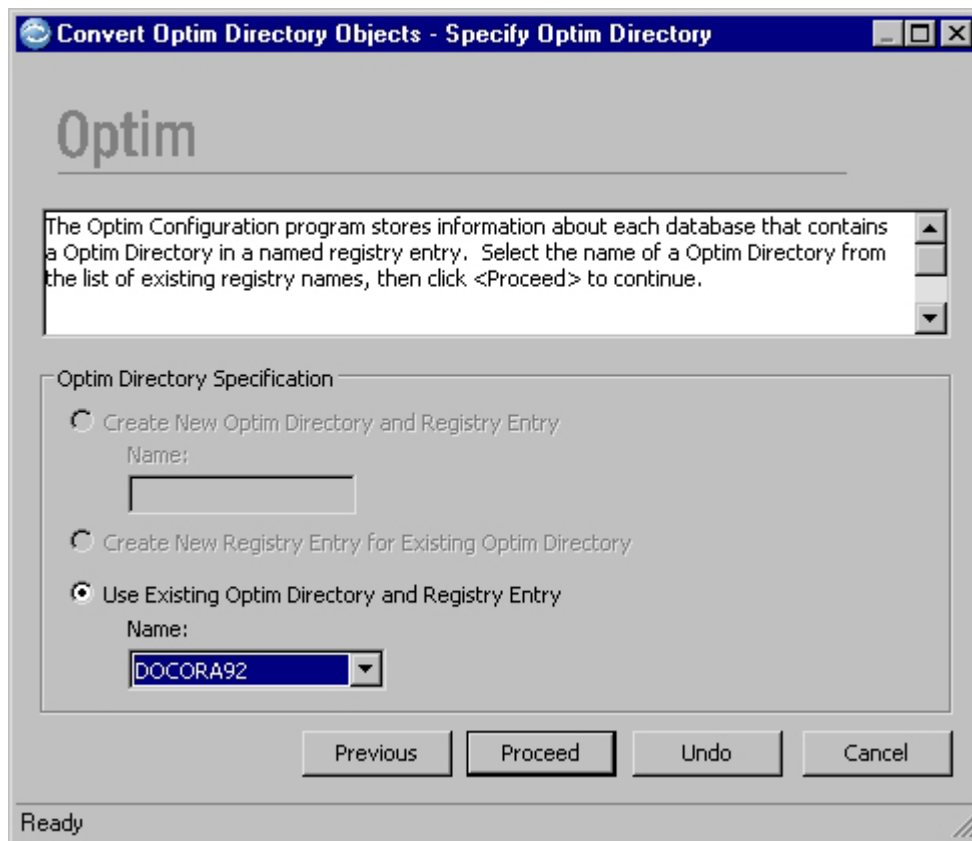
The next step in the process is to export objects from the old Optim Directory.



To begin this step, select the **Export Data from an Old Optim Directory** check box and click **Proceed**. To skip this step and display the Import Data into New Optim Directory? dialog, leave the check box blank and click **Proceed**.

Specify Optim Directory

Use the Specify Optim Directory dialog to select the name of the Optim Directory from which objects are exported.



Connect to Database

The Configuration program must connect to the database in order to access the old Optim Directory tables. The entries in the Connect to Database dialog are populated with values entered when the old Directory was created.

Convert Optim Directory Objects - Connect to Database

Optim

The Optim Configuration program must connect to the database to access the Optim Directory Tables. The User ID you specify must have DBMS authorization to perform the selected task.

Optim Directory
DOCORA92

Database Connection Parameters

User ID: optuser
Connection String: QOR922K
Password:
Optim Directory Schema Name: optuser

Previous Proceed Undo Cancel

Ready

Connection String

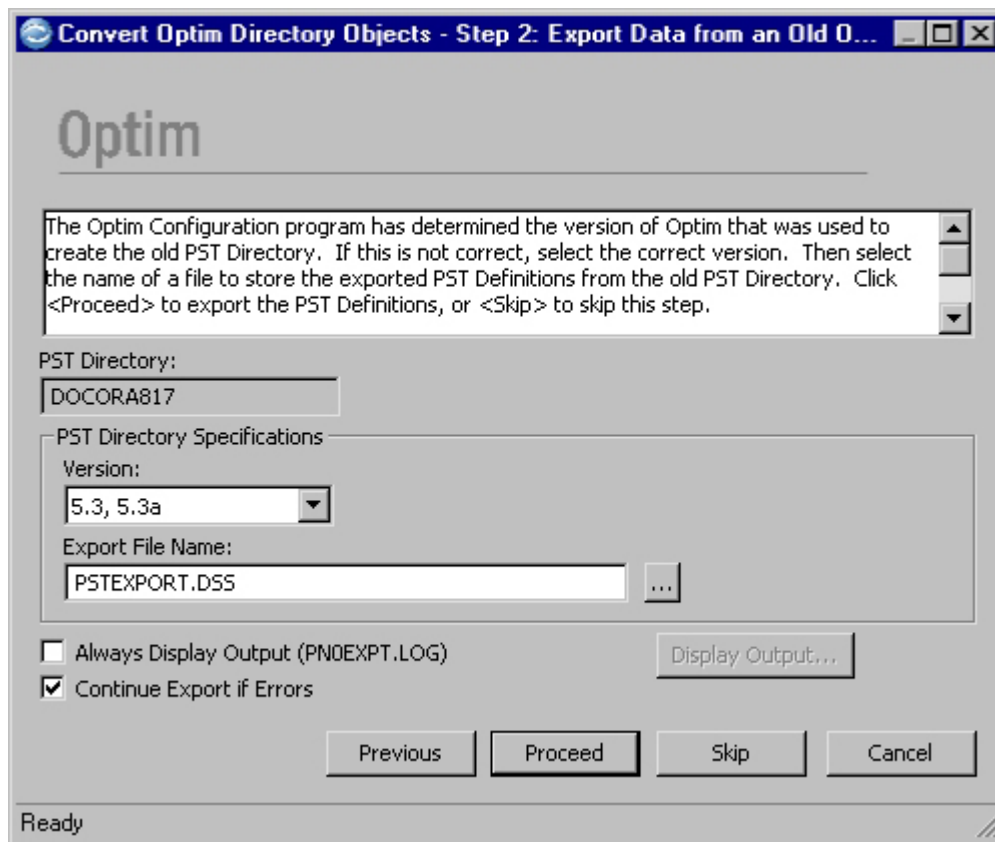
The name or string needed for the server to access the Optim Directory database.

Password

Enter the password (up to 30 characters) that corresponds to the specified User ID.

Export Old Directory Definitions

After the workstation is connected to the database, you can export objects using this dialog.



PST Directory

Name of the PST Directory from which objects are exported.

PST Directory Specifications

Version

Version of Configuration program used to create the old PST Directory.

Export File Name

Enter the name of the Export File. The Export File is a plain text file and has a .dss extension by default. Other extensions may be specified, or the file can be designated without an extension. The Export File is used as the input for Import Processing.

Always Display Output (PN0EXPT.LOG)

Select the check box to automatically display the export process log for the current process. When the Export Process is complete, the log is displayed in the Browse File dialog. To display the log only in the event of an error, clear the check box.

Continue Export if Errors

Indicate whether to halt processing if an error occurs. To continue processing if an error occurs, select the check box. To halt processing if an error occurs, clear the check box.

Run Export

To start the Export Process, click **Proceed**. If you specify the name of an Export File that already exists, a dialog prompts you to confirm that you want to overwrite the file. During Export Processing, the status bar displays information about the process.

If errors occur, processing continues if **Continue Export if Errors** is selected. Errors are written to the export process log after Export Processing is finished. The log is displayed in the Browse File dialog. You can review and print the log for diagnostic information about errors.

If some objects fail to be exported due to errors, check the specifications, and try the Export Process again by clicking **Proceed**.

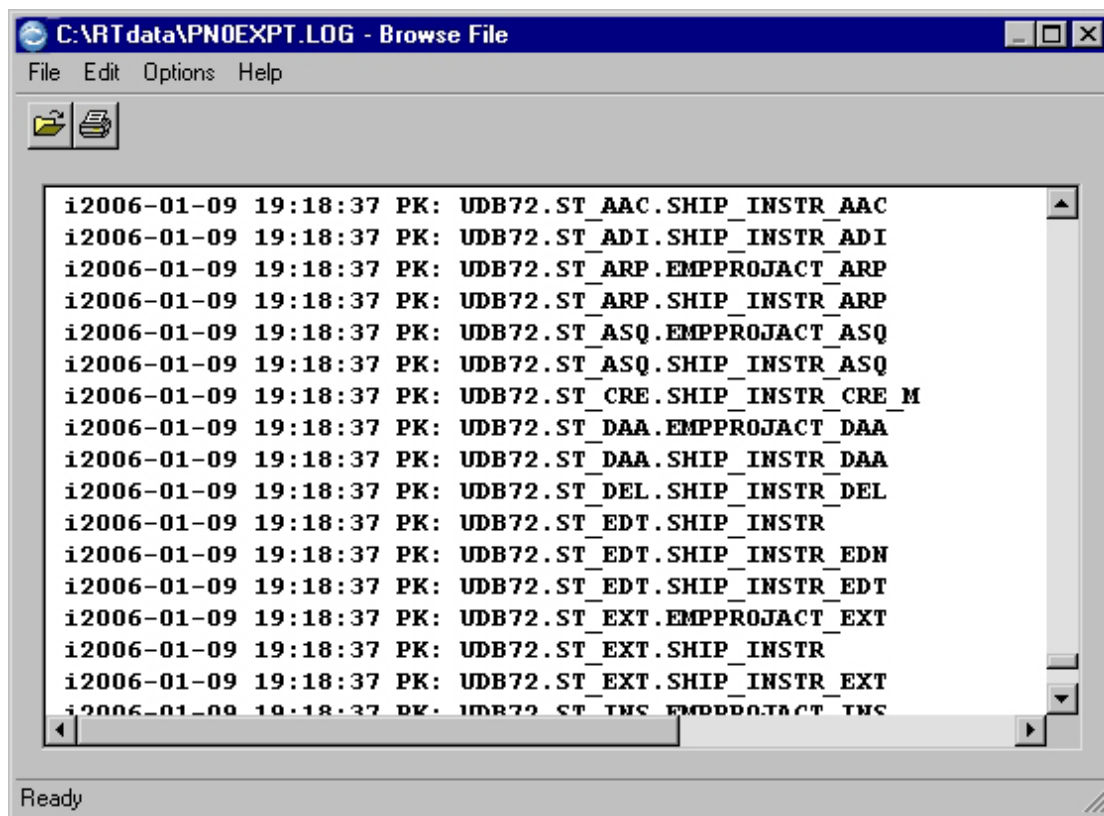
When processing is finished, the status bar displays the message: "Ready."

Browse File

The Browse File dialog displays the results of the Export Process, and includes the following details:

- Names of exported objects, grouped by object type.
- Date and time each object was exported.
- Explanatory text for each error, if errors were encountered.

The following is a sample export process log:



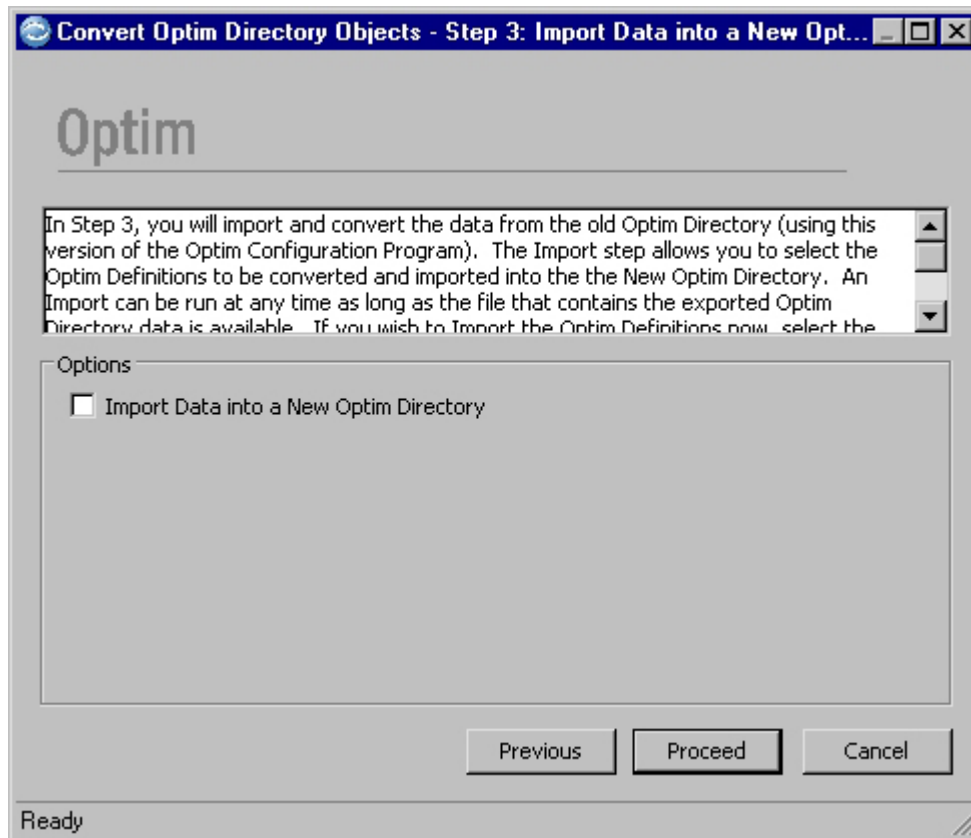
Print the log by choosing **Print** from the **File** menu. Each execution of the Export Process clears the log file before information for the current execution is written. Previous log information is not retained.

Select **Close** from the **File** menu to close the log and return to the Export dialog. You can display the log again for the current process by clicking **Display Output**.

Step 3: Import Data into New Optim Directory

This step describes how to import data into a new Optim Directory.

The next step in the Conversion Process is to import the objects into the new Optim Directory.

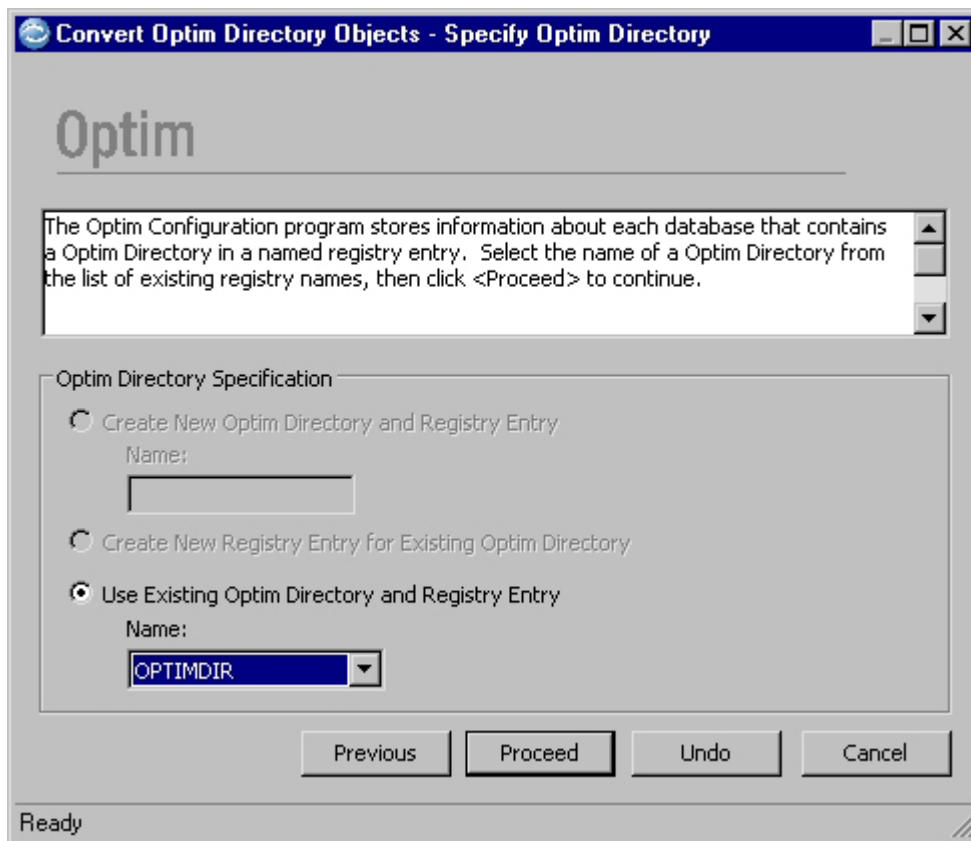


To begin this step, select the **Import Data into a New Optim Directory** check box and click **Proceed**. To skip this step, leave the check box blank and click **Proceed**.

Specify Optim Directory

This task describes how to specify the name of the new Optim Directory.

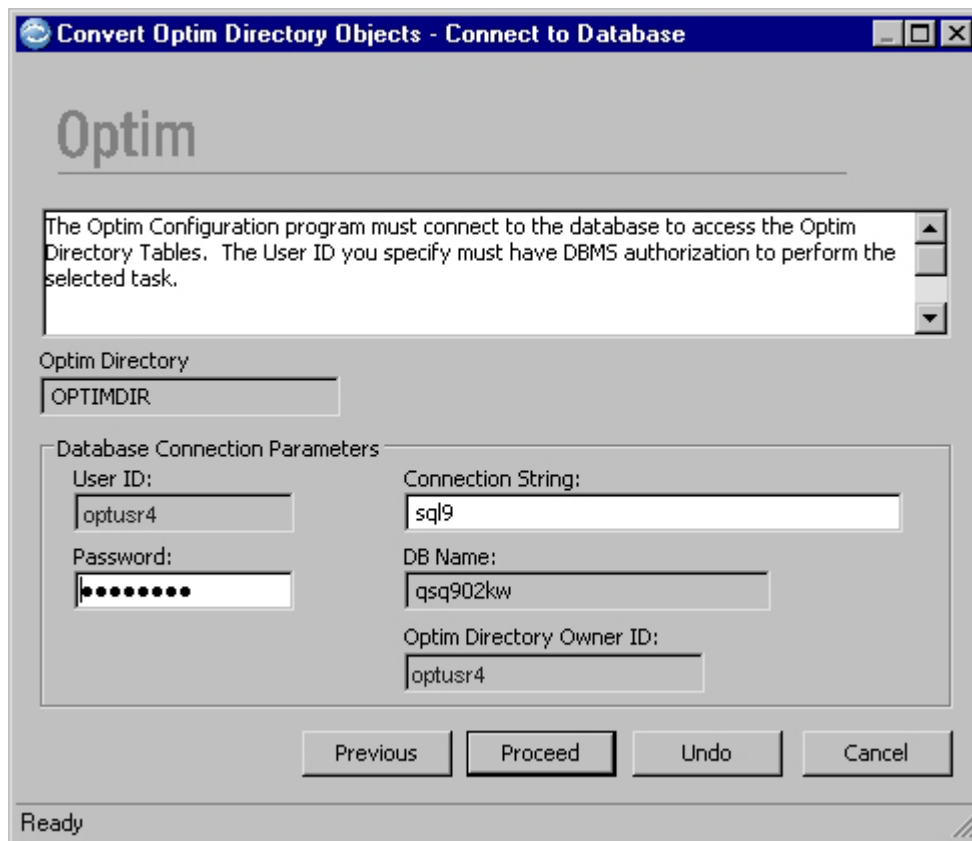
Use the Specify Optim Directory dialog to select the name of the new Optim Directory into which objects are imported.



Connect to Database

This task describes how to connect to the database.

The Configuration program must connect to the database in order to access the new Optim Directory tables. The entries in the Connect to Database dialog are populated with values entered when the Directory was created.



Connection String

The name or string needed for the server to access the Optim Directory database.

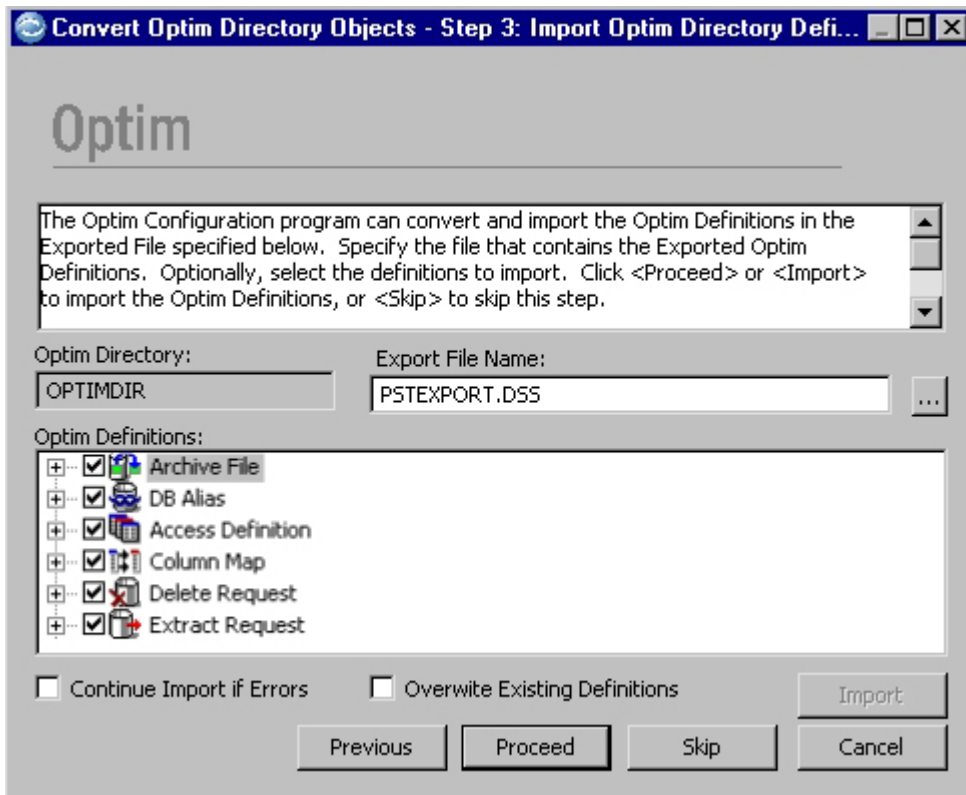
Password

Enter the password (up to 30 characters) that corresponds to the specified User ID.

Import Optim Directory Definitions

This task describes how to import Optim Directory definitions.

After the workstation is connected to the database, you can import the objects using the Import Optim Directory Definitions dialog.



Optim Directory

Name of the Optim Directory into which objects are imported.

Export File Name

Enter the name of the Export File. The Export File was created during the Export Process and contains the object definitions to import.

Optim Definitions

Identifies the objects in the Export File. You can display a list of objects of a certain type by clicking the plus (+) sign. Select the check boxes associated with the objects you want to import. To exclude an object, clear the corresponding check box. You must select at least one object definition to run the Import Process.

Continue Import if Errors

Indicate whether processing should stop if an error occurs. To continue processing if an error occurs, select the check box. To halt processing if an error occurs, clear the check box.

Overwrite Existing Definitions

Indicate what action is required when the name of an imported object matches that of an object already in the current Optim Directory:

- To select any or all objects and overwrite the existing definitions in the Directory, select the check box.
- To prevent overwriting objects, clear the check box.

Run Import

This task describes how to run the Import Process.

There are two ways to run the Import Process:

- If you want to import all selected objects at one time (i.e., in one import process), click **Next**.

- If you want to import a group of objects in one import process, and import another group in a separate import process, click **Import**. Each time you click **Import**, the objects selected in the **Optim Definitions** list are processed, but the Import dialog remains displayed so you can select the next group of objects you want to import.

For example, if you want to import all Access Definitions in one import process, import all Table Maps in another import process, and import all Calendars in a third import process, do the following:

1. Select the Access Definitions you want to import in the **Optim Definitions** list, and then click **Import**.
2. After the selected Access Definitions are processed, select the Table Maps you want to import, and click **Import** again.
3. After the selected Table Maps are processed, select the Calendars you want to import, and click **Import** a third time. (Alternatively, you can click **Next** when you are ready to process the last group of objects you want to import, as discussed in the Note following step 4.)
4. When you are done importing objects, click **Skip** to display the Complete dialog, described under “Conversion Complete.” When you are ready to process the last group of objects you want to import, you can click **Next**, instead of **Import**, to complete the Import process. If you do that, you do not have to click **Skip** to display the Complete dialog.

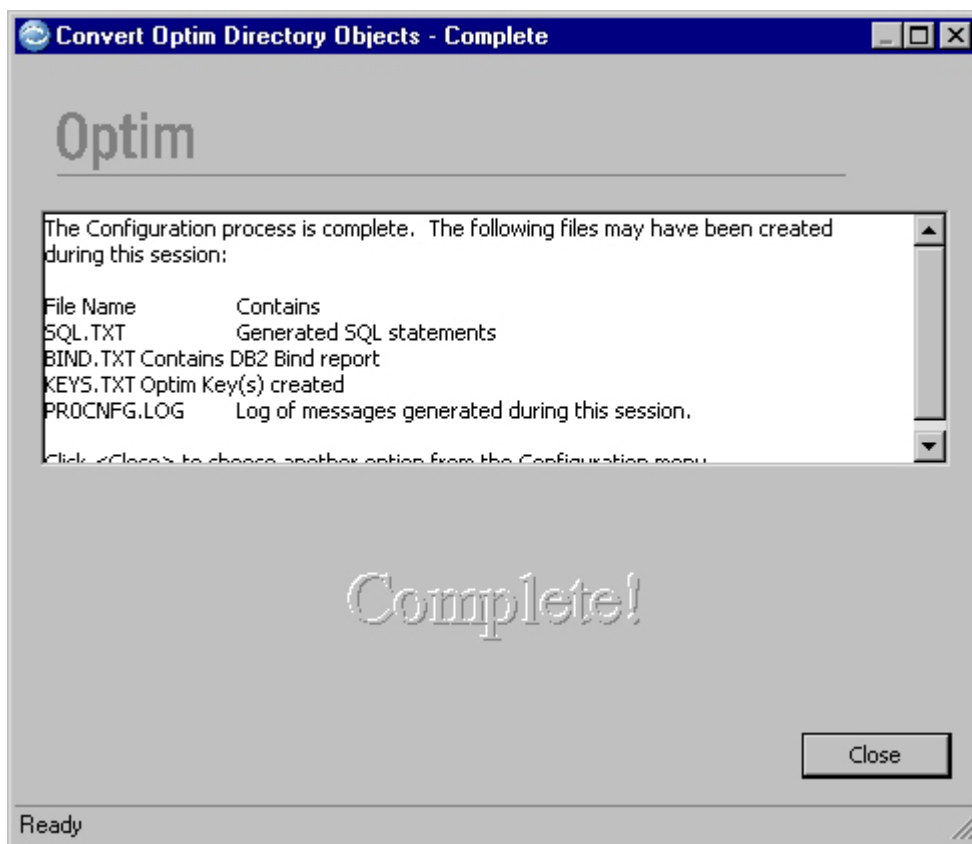
During import processing, the status bar displays information about the Import process. After processing completes, imported objects are identified by a gray check box.

If any errors occur, processing continues or stops based on the setting specified for the Continue Import if Errors prompt. Errors are identified by a red “X” beside each object in error. If the **Overwrite Existing Definitions** check box is cleared, duplicate definitions are noted in bold, and they are not imported. If some objects fail to be imported due to errors, check the specifications, and then retry the Import process by clicking **Import**.

Conversion Complete

This task describes how to complete the Conversion Process.

When you finish importing objects, the Conversion Process opens the Complete dialog. Click **Close** on that dialog to return to the Configuration main window, where you can quit the program or perform other tasks.



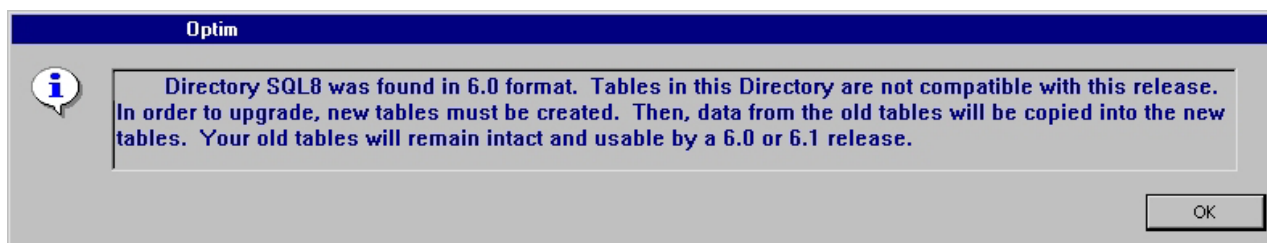
Conversion Process for Directory Tables on SQL Server

The Conversion Process for a version 6.0/6.1 Optim Directory on an SQL Server database is part of the normal Directory maintenance performed after installing a new version of Optim. After performing the conversion, you can keep or drop the old Directory.

Converting Version 6.0/6.1 Directory Tables in SQL Server

To convert version 6.0/6.1 Optim Directory tables in an SQL Server database, use the **Create/Update Optim Directory** or **Apply Maintenance for Optim Directory Access** options available from the Configuration program **Tasks** menu.

After selecting an Optim Directory and completing the Connect to Database dialog (see “Connect to Database” on page 488), a pop-up warns you that new Directory tables will be created and the old tables will still be available to your 6.0/6.1 release.



Click **OK** to continue the Conversion Process and open the Update Directory Tables dialog. Click **Proceed** to create the 6.2 Optim Directory tables and continue the Configuration program task.

Dropping Version 6.0/6.1 Directory Tables

After an Optim Directory in an SQL Server database has been converted, you can drop the version 6.0/6.1 Directory tables. To drop the 6.0/6.1 Directory tables, select **Drop DB Alias or Optim Tables** from the Configuration program **Tasks** menu.

Specify Optim Directory

Use the Specify Optim Directory dialog to select the name of the version 6.0/6.1 Optim Directory you want to drop. Click **Proceed** to continue.

Connect to Database

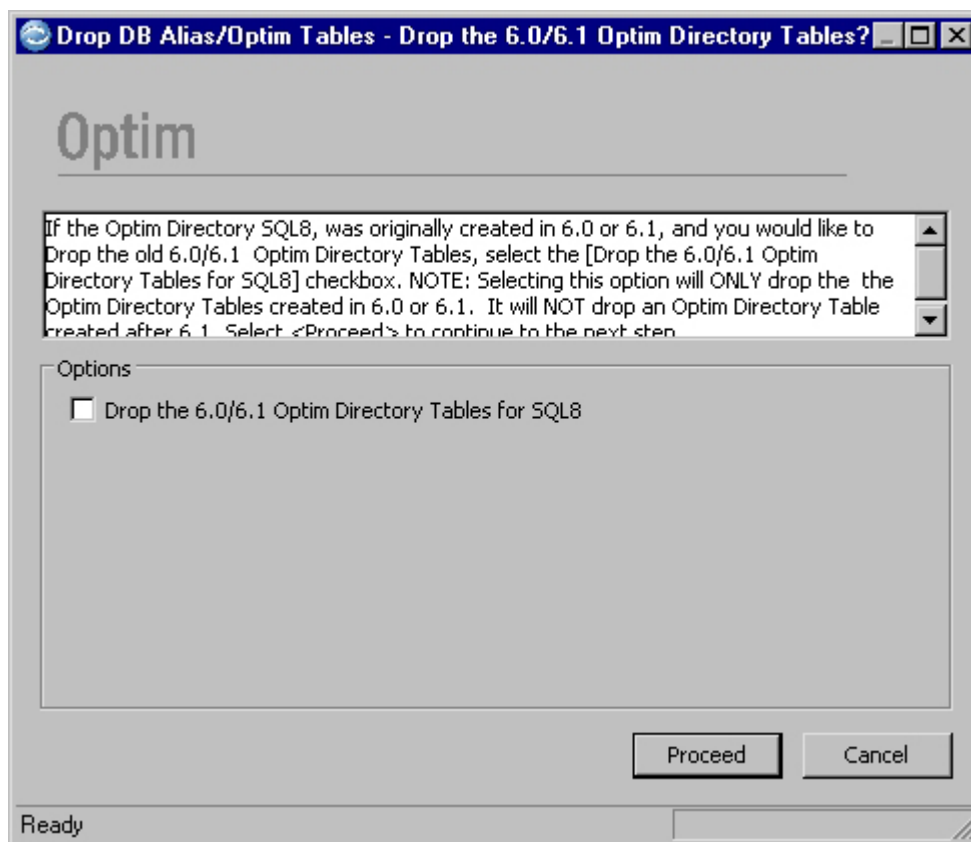
The Configuration program must connect to the database to drop the Optim Directory tables. Use the Connect to Database dialog to provide the connection information. Click **Proceed** to continue.

Create/Select DB Alias

In the Create/Select DB Alias dialog, click **Skip** to continue the process of dropping the version 6.0/6.1 tables. Do not click **Proceed**, or the Configuration program will drop the DB Alias for your new Optim Directory.

Drop the 6.0/6.1 Optim Directory Tables?

In the Drop the 6.0/6.1 Optim Directory Tables? dialog, select **Drop the 6.0/6.1 Optim Directory Tables** to make the Directory unavailable to the Optim products version 6.0/6.1. Click **Proceed** to continue.



Connect to Database

The Configuration program must reconnect to the database to drop the Optim Directory tables. Use the Connect to Database dialog to provide the connection information. Click **Proceed** to continue.

Drop Optim Directory Tables

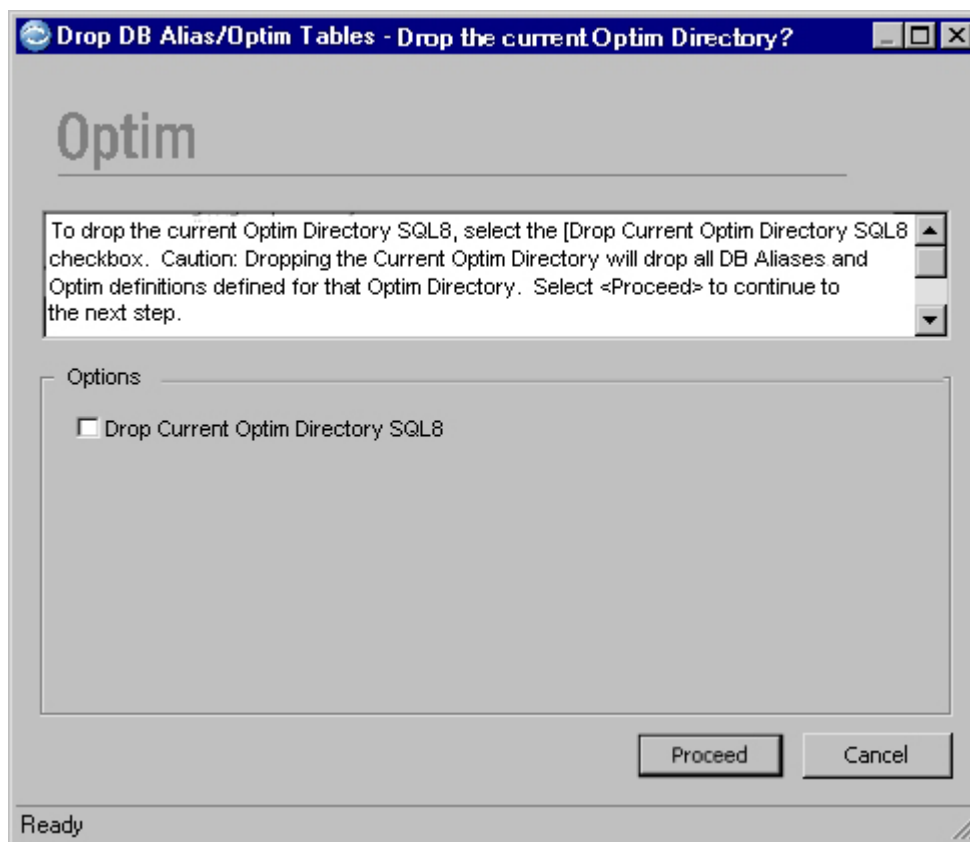
Before you drop an Optim Directory (and Optim Directory tables), the Configuration program displays the table identifier and prompts you to review the generated SQL, using the Drop Directory Tables dialog. Click **Proceed** to drop the 6.0/6.1 Directory tables and continue.

Create/Drop Stored Procedures

Use the Create/Drop Stored Procedures dialog to drop the stored procedures SQL Server uses to access tables in the 6.0/6.1 Directory. Click **Proceed** to continue.

Drop the Current Directory?

In the Drop the Current Directory? dialog, select **Drop Current Directory** to drop all DB Aliases and object definitions in the 6.0/6.1 Directory. Click **Proceed** to continue.



Connect to Database

The Configuration program must connect to the database in order to drop the DB Aliases, object definitions, and stored procedures. Use the Connect to Database dialog to provide the connection information for the Directory. Click **Proceed** to continue.

- Dotted lines indicate Optim Extended Relationships. Extended relationships can emulate implicit, or application-managed, relationships in your database, allowing you to manipulate sets of relational data in the same manner as in your production environment.
- Data is provided for all tables in the sample database shown in the diagram.

An additional set of tables is also installed with the sample database. Tables in the additional set have the same names as tables in the first set, with the suffix “2” appended. The four tables in this additional set are:

- OPTIM_CUSTOMERS2
- OPTIM_ORDERS2
- OPTIM_DETAILS2
- OPTIM_ITEMS2

Tables in the additional set do not contain data. They are used to demonstrate the facilities in Optim.

OPTIM_SALES Table

The OPTIM_SALES table identifies each salesperson by name, ID number and manager.

The OPTIM_SALES table has the following columns:

SALESMAN_ID

CHAR; up to 6 characters; cannot contain null.

FIRST_NAME

VARCHAR; up to 15 characters; cannot contain null.

LAST_NAME

VARCHAR; up to 15 characters; cannot contain null.

NATIONALITY

VARCHAR; up to 30 characters

NATIONAL_ID

VARCHAR; up to 30 characters

PHONE_NUMBER

VARCHAR; up to 20 characters; cannot contain a null value.

EMAIL_ADDRESS

VARCHAR; up to 70 characters; cannot contain null.

AGE SMALLINT; cannot contain null; has a default value.

SEX CHAR; 1 character; cannot contain null; has a default value.

TERRITORY

VARCHAR; up to 14 characters; cannot contain null.

MANAGER_ID

VARCHAR; up to 6 characters.

Primary Keys

The SALESMAN_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_SALES table is a parent of:

- The OPTIM_CUSTOMERS table, through a foreign key on column SALESMAN_ID.

- The OPTIM_MALE_RATES table, through an Optim data-driven relationship on column AGE when SEX = 'M'.
- The OPTIM_FEMALE_RATES table, through an Optim data-driven relationship on column AGE when SEX = 'F'.
- The OPTIM_STATE_LOOKUP table, through an Optim substring relationship using SUBSTR(SALESMAN_ID,1,2).

OPTIM_CUSTOMERS Table

The OPTIM_CUSTOMERS table contains customer names, ID numbers, and addresses.

The OPTIM_CUSTOMERS table has the following columns:

CUST_ID

CHAR; up to 5 characters; cannot contain null; contains a check constraint.

CUSTNAME

CHAR; up to 20 characters; cannot contain null.

ADDRESS1

VARCHAR; up to 100 characters; cannot contain null.

ADDRESS2

VARCHAR; up to 100 characters; cannot contain null.

LOCALITY

VARCHAR; up to 56 characters

CITY VARCHAR; up to 60 characters

STATE

VARCHAR; up to 30 characters

COUNTRY_CODE

CHAR; up to 2 characters

POSTAL_CODE

VARCHAR; up to 15 characters

POSTAL_CODE_PLUS4

CHAR; up to 4 characters; can contain a null value.

EMAIL_ADDRESS

VARCHAR; up to 70 characters

PHONE_NUMBER

VARCHAR; up to 20 characters

YTD_SALES

DECIMAL; dollar amount; cannot contain null; has a default value.

SALESMAN_ID

CHAR; up to 6 characters

NATIONALITY

VARCHAR; up to 30 characters

NATIONAL_ID

VARCHAR; up to 30 characters

CREDITCARD_NUMBER

VARCHAR; 19 characters

CREDITCARD_TYPE

VARCHAR; up to 30 characters

CREDITCARD_EXP

CHAR; 4 characters

CREDITCARD_CVV

VARCHAR; up to 4 characters

DRIVER_LICENSE

VARCHAR; up to 30 characters

CUSTOMER_INFO

XMLTYPE

Primary Keys

The CUST_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_CUSTOMERS table is a parent of:

- The OPTIM_ORDERS table, through a foreign key on column CUST_ID.
- The OPTIM_SHIP_TO table, through an Optim relationship on column CUST_ID.

The OPTIM_CUSTOMERS table is a child of:

- The OPTIM_SALES table, through its foreign key on column SALESMAN_ID.

OPTIM_ORDERS Table

The OPTIM_ORDERS table contains information for orders, including order number, customer ID, and salesman.

The OPTIM_ORDERS table has the following columns:

ORDER_ID

DECIMAL; order ID number; cannot contain null.

CUST_ID

CHAR; customer ID number; up to 5 characters; cannot contain null.

ORDER_DATE

TIMESTAMP; date of order; cannot contain null; has default value.

ORDER_TIME

TIMESTAMP; time of day; cannot contain null; has default value.

FREIGHT_CHARGES

DECIMAL; dollar amount

ORDER_SALESMAN

CHAR; up to 6 characters

ORDER_POSTED_DATE

TIMESTAMP; cannot contain null; has default value.

ORDER_SHIP_DATE

CHAR; date when order is shipped; up to 8 characters; cannot contain null; has default value.

Primary Keys

The ORDER_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_ORDERS table is a parent of the OPTIM_DETAILS table, through a foreign key on column ORDER_ID.

The OPTIM_ORDERS table is a child of the OPTIM_CUSTOMERS table, through its foreign key on column CUST_ID.

OPTIM_DETAILS Table

The OPTIM_DETAILS table contains additional information for each order in the OPTIM_ORDERS table.

The OPTIM_DETAILS table has the following columns:

ORDER_ID

DECIMAL; order ID number; cannot contain null.

ITEM_ID

CHAR; up to 5 characters; item ID number; cannot contain null.

ITEM_QUANTITY

DECIMAL; number of items; cannot contain null.

DETAIL_UNIT_PRICE

DECIMAL; unit price; dollar amount; cannot contain null.

Primary Keys

The ORDER_ID and ITEM_ID columns are the primary key.

Relationships to Other Tables

The OPTIM_DETAILS table is a child of:

- The OPTIM_ORDERS table, through its foreign key on column ORDER_ID.
- The OPTIM_ITEMS table, through its foreign key on column ITEM_ID.

OPTIM_ITEMS Table

The OPTIM_ITEMS table contains information about each item for an order, including description, price, and quantity in inventory.

The OPTIM_ITEMS table has the following columns:

ITEM_ID

CHAR; up to 5 characters; cannot contain null.

ITEM_DESCRIPTION

VARCHAR; up to 72 characters; cannot contain null.

CATEGORY

VARCHAR; up to 14 characters; cannot contain null.

RATING

CHAR; up to 4 characters; cannot contain null.

UNIT_PRICE

DECIMAL; dollar amount; cannot contain null.

ON_HAND_INVENTORY

INTEGER; cannot contain null.

Primary Keys

The ITEM_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_ITEMS table is a parent of the OPTIM_DETAILS table, through a foreign key on column ITEM_ID.

OPTIM_SHIP_TO Table

The OPTIM_SHIP_TO table contains order shipping information.

The OPTIM_SHIP_TO table has the following columns:

CUST_ID

CHAR; up to 5 characters; cannot contain null.

SHIP_ID

DECIMAL; cannot contain null.

ADDRESS1

VARCHAR; up to 100 characters

ADDRESS2

VARCHAR; up to 100 characters

LOCALITY

VARCHAR; up to 56 characters

CITY VARCHAR; up to 30 characters

STATE

VARCHAR; up to 30 characters

COUNTRY_CODE

CHAR; 2 character abbreviation

POSTAL_CODE

VARCHAR; up to 15 characters

POSTAL_CODE_PLUS4

CHAR; 4 characters

IN_CARE_OF

VARCHAR; up to 31 characters

SHIPPING_CHANGE_DT

TIMESTAMP; cannot contains nulls; has default value.

Primary Keys

The SHIP_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_SHIP_TO table is a parent of the OPTIM_SHIP_INSTR table, through an Optim relationship on column SHIP_ID.

The OPTIM_SHIP_TO table is a child of the OPTIM_CUSTOMERS table, through its Optim relationship on column CUST_ID.

OPTIM_SHIP_INSTR Table

The OPTIM_SHIP_INSTR table contains detailed information for order shipping.

The OPTIM_SHIP_INSTR table has the following columns:

SHIP_ID

DECIMAL

SHIP_INSTR_ID

INTEGER

ORDER_SHIP_INSTR

VARCHAR; up to 254 characters

SHIP_UPDATED

TIMESTAMP; cannot contain null; has default value.

Primary Keys

The SHIP_INSTR_ID column is the primary key column.

Relationships to Other Tables

The OPTIM_SHIP_INSTR table is a child of the OPTIM_SHIP_TO table, through its Optim relationship on column SHIP_ID.

OPTIM_MALE_RATES Table

The OPTIM_MALE_RATES table contains insurance rates, based on age.

The OPTIM_MALE_RATES table has the following columns:

AGE SMALLINT

RATE_PER_1000

DECIMAL; rate in dollar amount

Primary Keys

The RATE_PER_1000 column is the primary key column.

Relationships to Other Tables

The OPTIM_MALE_RATES table is a child of the OPTIM_SALES table, through its Optim data-driven relationship on column AGE.

OPTIM_FEMALE_RATES Table

The OPTIM_FEMALE_RATES table contains insurance rates based on age.

The OPTIM_FEMALE_RATES table has the following columns:

AGE SMALLINT

RATE_PER_1000

DECIMAL; rate in dollar amount

Primary Keys

The RATE_PER_1000 column is the primary key column.

Relationships to Other Tables

The OPTIM_FEMALE_RATES table is a child of the OPTIM_SALES table, through its Optim data-driven relationship on column AGE.

OPTIM_STATE_LOOKUP Table

The OPTIM_STATE_LOOKUP table contains state codes and corresponding abbreviations.

The OPTIM_STATE_LOOKUP table has the following columns:

DIST_CODE

CHAR; 3 characters; cannot contain a null value.

DISTRICT

CHAR; 2 characters; cannot contain a null value.

Primary Keys

The OPTIM_STATE_LOOKUP table does not have a primary key.

Relationships to Other Tables

The OPTIM_STATE_LOOKUP table is a child of the OPTIM_SALES table through a substring relationship on column DISTRICT using SUBSTR(SALESMAN_ID,1,2).

Sample Column Map Exits

The \Samples\CMExit subdirectory includes a set of sample exit routines. These commented samples show how to use the data areas available for exit routines and provide examples of the type of processing that can be performed using an exit.

Note: Column Map Exits must be compiled and linked, and must conform to C programming language calling conventions.

Sample exit routines included are:

PSTEXIT.C

Samples of the three types of exit routines - standard, source format, and destination format.

PSTEXIT.dll

Compiled versions of the three sample exit routines.

PSTEXIT.h PSTCMEXIT.h

Required header files.

PSTEXIT.mak

A sample make file.

Note: For complete information about Column Map Exits, refer to the *Common Elements Manual* .

Sample Standard Exit

A Standard Exit routine is called to derive the value for a destination column in a Column Map. This sample performs two operations on the sample database table OPTIM_CUSTOMERS, as follows:

- Discards rows that have a value of zero (0) in the YTD_SALES column, and processes all other rows.
- Assigns a value of 'SE003 ' to the SALESMAN_ID column for all customers in Florida (rows with FL in the STATE column).

To reference this sample in a Column Map, you must specify EXIT PSTEXIT in the source column for the destination column SALESMAN_ID.

Sample Source Format Exit

A Source Format Exit is typically called to format the source column, for example, for an Age Function that otherwise would not be supported in a Column Map.

The sample performs the following operations on the sample database table OPTIM_ORDERS:

- Discards rows that have a value of 'SE012' in the SALESMAN_ID column, and processes all other rows.
- Ages ORDER_DATE for rows that have a value of 'SE0005' in the SALESMAN_ID column, and skips all other rows.

To use this sample, you must specify the exit routine as part of the Age Function in the ORDER_DATE source column of the Column Map as follows:

```
AGE(+1W,SC=ORDER_DATE,SRCEXIT=PSTEXIT)
```

Sample Destination Format Exit

A Destination Format Exit is typically called to format the destination column, for example, for an Age Function that otherwise would not be supported in a Column Map.

The sample performs the following operations on the sample database table OPTIM_ORDERS:

- Discards rows that have a value of 'SE012' in the SALESMAN_ID column, and processes all other rows.
- Ages ORDER_SHIP_DATE for rows that have a value of 'SE0005' in the SALESMAN_ID column, and skips all other rows.

To use this sample, you must specify the exit routine as part of the Age Function in the ORDER_SHIP_DATE source column of the Column Map as follows:

```
AGE(1W,SC=ORDER_SHIP_DATE,SF='YY/MM/DD', DSTEXIT=PSTEXIT)
```

Sample Column Map Procedures

A Column Map Procedure is a custom program written in Optim Basic that is referenced to perform special processing or data manipulation that is otherwise beyond the scope of a Column Map.

The function of a Column Map Procedure is generally the same as that of an exit routine. Exit routines, however, are written outside Optim and must be externally compiled and linked. Column Map Procedures are written within Optim.

The \Samples\CMPProc subdirectory includes sample files written in Optim Basic that can be used to create a set of Column Map procedures. The file names are:

CMEXIT.BAS

Sample Optim Basic Column Map procedure modeled after the Standard Exit routine. Refer to "Sample Standard Exit" on page 510.

TBLINFO.BAS

Sample Optim Basic Column Map procedure that demonstrates how to access and retrieve data about the process, product or database table. This sample procedure moves source data to the destination without changing it, and can be used with most column data types.

DEFAULT.BAS

Sample Optim Basic Column Map procedure used to populate the Column Map Procedure Editor when installed in the BIN subdirectory.

Create a Column Map Procedure from file provided

This task describes how to create a Column Map Procedure from a provided file.

To create a Column Map Procedure from one of the files provided:

1. In the main window, select **Column Map Proc** from the **Definitions** menu to open the Column Map Proc Editor and last edited Column Map Proc.
2. Select **New** from the **File** menu in the Column Map Proc Editor.
3. Select **Import** from the **File** menu in the Column Map Proc Editor to open the Supply an Import File Name dialog.
4. Type (or click the **Browse** button and select) the path to the Samples subdirectory containing the sample files, and the file name: (e.g., C:\Program Files\IBM Optim\RT\ Samples\CMPProc\CMEXIT.BAS)
5. Select **Save As** from the **File** menu in the Column Map Proc Editor. In the Save a Column Map Proc dialog, type a name in the **Pattern** box and click **Save**.
6. Edit the Column Map Proc, as needed.
7. Compile.

Sample Standard Procedure

A Standard procedure is called to derive the value for a destination column in a Column Map. This sample Column Map procedure is created from the CMExit.bas file provided, as described above.

This procedure performs two operations on the sample database table OPTIM_CUSTOMERS, as follows:

- Discards rows that have a value of zero (0) in the YTD_SALES column, and processes all other rows.
- Assigns a value of 'SE012' to the SALESMAN_ID column for customers in Florida (rows with FL in the STATE column).

To use this sample in a Column Map, you must specify PROC CMEXIT.BAS in the source column for the destination column SALESMAN_ID.

Sample Table Information Procedure

The sample table information Column Map procedure is created from the TBLINFO.BAS file as described above. This sample is provided to demonstrate the Optim Basic Column Map procedures that you can use to retrieve data about a process, product or database table.

This procedure moves unchanged source data to the destination, and demonstrates how to output the following:

- Name of Optim Temp Directory
- Name of Optim Data Directory
- Name of Optim Script
- Company Name
- Optim Release Number
- Optim Build Number
- Optim Error Codes
- Instance
- Thread ID
- Thread Handle

- Operating System
- Operating System Release
- Operating System Build
- Operating System Service Pack
- Server User ID
- Computer Name

Sample Extract Files

The following Extract Files are included in the Samples\Extract subdirectory.

CSB4DATA.XF PSTDemo.XF	These Extract Files contain data from the sample database that has been altered slightly. These files are useful for training or learning about features of Compare.
PSTD_IFX.XF PSTD_MSS.XF PSTD_MVS.XF PSTD_ORA.XF PSTD_SYB.XF PSTD_UDB.XF	These Extract Files duplicate the data in PSTDemo.XF in DBMS-specific format.
SAMP_390.XF SAMP_DB2.XF SAMP_IFX.XF SAMP_MSS.XF SAMP_MVS.XF SAMP_ORC.XF SAMP_SYB.XF	These Extract Files provide DBMS-specific copies of the Optim sample database data.

Sample JCL File

The sample JCL file (LOADDB2.jcl) for running the DB2 z/OS loader from an Optim Server is included in the Samples\JCL subdirectory.

Appendix I. Data Privacy Data Tables

Data privacy data tables are available to clients who have an Optim Data Privacy License. These tables allow you to mask company and personal data — such as employee names, customer names, social security numbers, credit card numbers, and email addresses — to generate transformed data that is both unique and valid within the context of the application. Generally, these data privacy tables are loaded when you configure the first workstation, but you also can load them independently or when you configure an additional DB Alias.

You can use the data privacy data tables to:

- Prevent internal privacy breaches by de-identifying or masking the data available to developers, quality assurance testers, and other personnel.
- Improve privacy compliance initiatives by substituting customer data with contextually accurate, but fictionalized data.
- Protect confidential customer information and employee data in your application development and testing environments.
- Ensure valid test results by propagating masked elements across related tables to ensure the referential integrity of the database.

If you have an Optim Data Privacy License, the data privacy data tables are available on the installation DVD in a `privacy.xf` extract file that is loaded during the configuration process. (See “Load/Drop Data Privacy Tables” on page 107.)

Content of Data Privacy Tables

The Privacy Extract file, `privacy.xf`, includes the tables described in this section.

The tables include lookup information on companies and individuals that can be used for data masking or data privacy processing. Minor differences in data types exist, depending upon the DBMS you use to install the data privacy tables.

PERSON Table

The PERSON table contains the following columns and data:

EMPNO

Employee number. CHAR; 6 characters.

NATIONAL_ID

National ID, such as a social security number (SSN). CHAR; 20 characters.

NATIONAL_ID_TYPE

National ID type, such as USSSN for US Social Security Number. CHAR; 6 characters.

ADDR_STREET1

First line of street address. VARCHAR; 30 characters.

ADDR_STREET2

Second line of street address. VARCHAR; 30 characters.

ADDR_CITY

City. CHAR; 20 characters.

ADDR_STATE

State abbreviation. CHAR; 6 characters.

ADDR_ZIP
ZIP code. CHAR; 6 characters.

ADDR_COUNTRY
Country abbreviation. CHAR; 3 characters.

PHONE_NUMBER
Phone number, including area code. CHAR; 20 characters.

PHONE_COUNTRY
Country code for international calls. CHAR; 20 characters.

SALARY
Person's salary. DECIMAL; 11 places with 2 decimal places.

NAME_FIRST
First name. CHAR; 15 characters.

NAME_INITIAL
Middle initial. CHAR; 1 character.

NAME_LAST
Last name. CHAR; 15 characters.

NAME_FULL
Full name: first name, middle initial, and last name. VARCHAR; 40 characters.

BIRTHDATE
Birth date. DATE.

GENDER
M = Male, F = Female. CHAR; 1 character.

EMAIL
Email address. CHAR; 70 characters.

CREDITCARD
Credit card number. CHAR; 19 characters.

ADDRESS Table

The ADDRESS table contains the following columns and data:

SEQ Unique, sequential number. INTEGER.

ADDRESS
Street address. CHAR; 50 characters.

CITY City. CHAR; 28 characters.

STATE
State abbreviation. CHAR; 2 characters.

ZIPCODE
ZIP code. CHAR; 5 characters.

ZIPPLUS4
Extended portion of US ZIP code. CHAR; 4 characters.

Note: Data in the ADDRESS table is copyrighted by the United States Postal Service and is provided with permission.

COMPANY Table

The COMPANY table has the following columns and data:

SEQ Unique, sequential number. INTEGER.

DATAVALUE

Company name. CHAR; 40 characters.

Note: Data in the COMPANY table is copyrighted by the United States Postal Service and is provided with permission.

FIRSTNAME Table

The FIRSTNAME table has the following columns and data:

SEQ Unique, sequential number. INTEGER.

DATAVALUE

First name. CHAR; 15 characters.

FIRSTNAME_F Table

The FIRSTNAME_F table has the following columns and data for females:

SEQ Unique, sequential number. INTEGER.

DATAVALUE

First name. CHAR; 15 characters.

FIRSTNAME_M Table

The FIRSTNAME_M table has the following columns and data for males:

SEQ Unique, sequential number. INTEGER.

DATAVALUE

First name. CHAR; 15 characters.

LASTNAME Table

The LASTNAME table has the following columns and data:

SEQ Unique, sequential number. INTEGER.

DATAVALUE

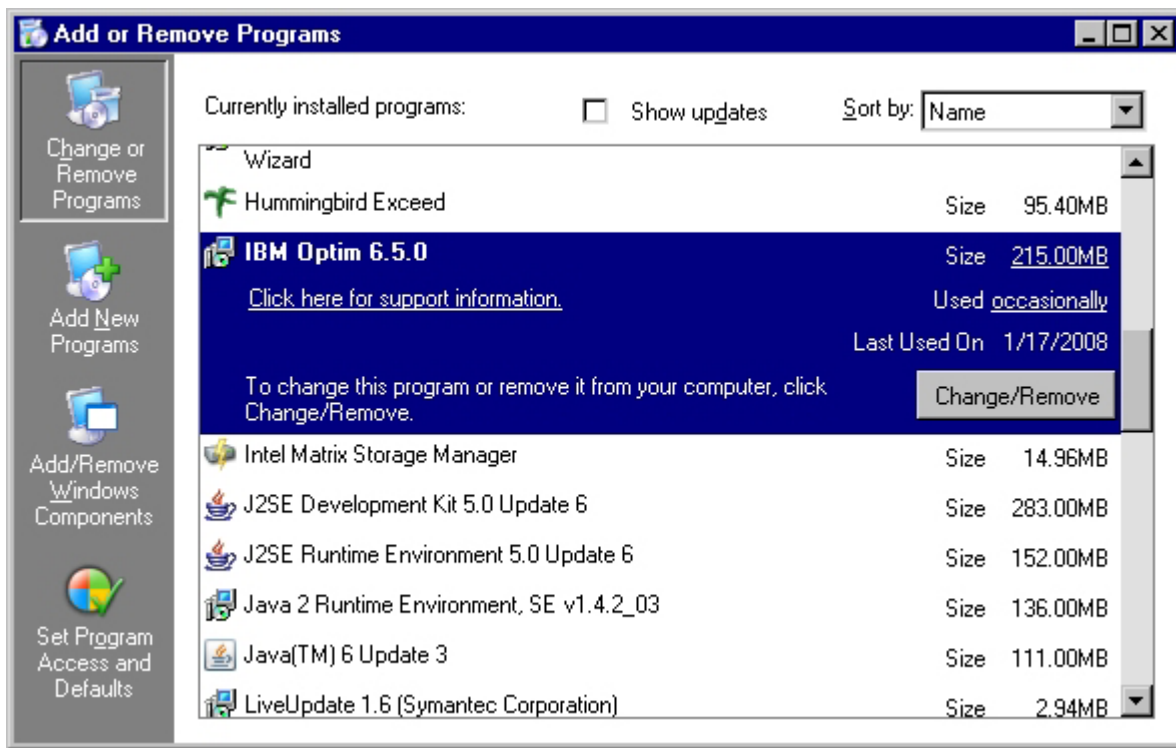
Last name. CHAR; 15 characters.

Appendix J. Uninstalling

To remove Optim from a workstation, use the Add/Remove Programs utility in the Windows Control Panel, as follows.

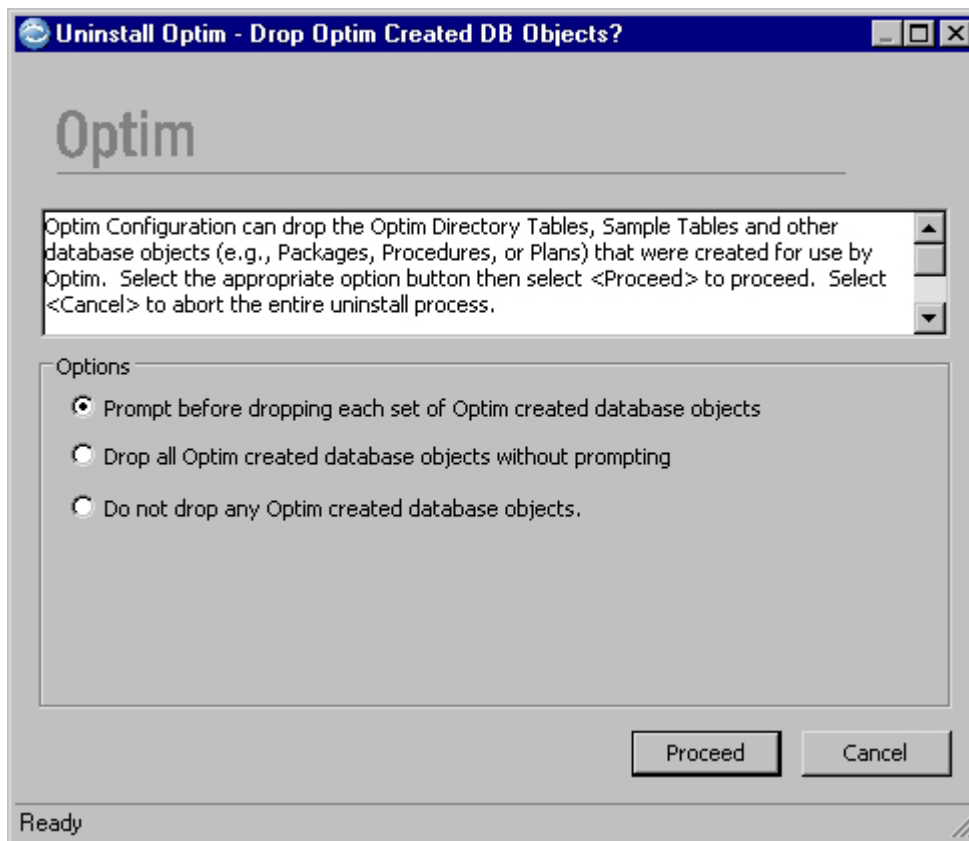
Select **Add/Remove Programs** from the Windows Control Panel.

Select **IBM Optim** from the list of programs on the Add/Remove Programs dialog.



Click **Change/Remove** to run the Configuration program.

The Uninstall Optim - Drop Optim Created DB Objects dialog is displayed.



Select one of the three options:

- Prompt before dropping each set of Optim created database objects.
- Drop all Optim created database objects without prompting.
- Do not drop any Optim created database objects.

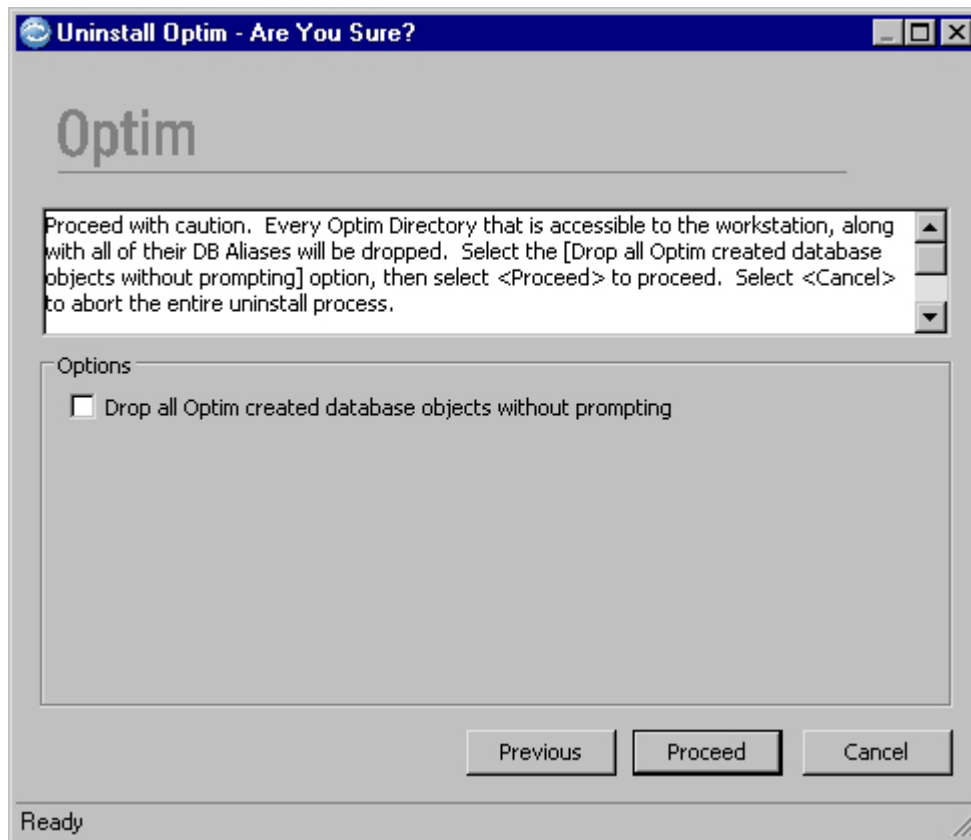
Prompt before Dropping Each Set of Optim Database Objects

When you select this option, and click **Proceed**, you are prompted to confirm the deletion of each object. After all objects have been dropped, you are asked to confirm deletion of the Optim Archive ODBC Interface driver.

Refer to “Drop DB Alias or Optim Tables” on page 211 for the sequence in which you are asked to confirm the deletion of Optim created database objects.

Drop All Optim Created Database Objects without Prompting

When you select this option, and click **Proceed**, you are cautioned that every Optim Directory and DB Alias accessible from the workstation will be dropped without further prompting.



Select the check box on the Are You Sure dialog and click **Proceed** to drop all Optim objects. Click **Cancel** to abort the uninstall process.

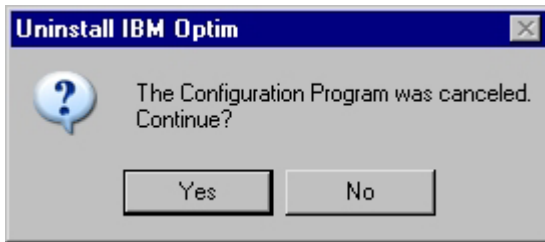
If a password is required to access a particular database, you will be prompted for it. When the Optim sample database tables are to be dropped, you will be prompted to confirm that the correct tables are dropped. When the data privacy tables are to be dropped, you will also be prompted to confirm that the correct tables are dropped.

Do Not Drop Any Optim Created Database Objects

When you select this option, and click **Proceed**, all Optim created database objects remain unchanged and intact, but the Optim software is removed from the workstation.

Cancel the Uninstall Process

If you select **Cancel** on any window, the Configuration program exits and a confirmation is displayed.



- Click **Yes** to close the confirmation dialog and continue the uninstall process.
- Click **No** to cancel the uninstall process.

Appendix K. Installing Optim Designer

Install Optim Designer on each computer that is to be used to design or test data management services.

Optim Designer requires an activated copy of Infosphere Data Architect. Each Optim Designer installation disc includes an Infosphere Data Architect installation disc, and each downloaded Optim Designer installation package includes an Infosphere Data Architect installation package. Each Optim Designer installation disc and Optim Designer installation package also includes an Infosphere Data Architect product activation kit, which you can use to activate Infosphere Data Architect.

If you want to install Optim Designer using an instance of Infosphere Data Architect that is already installed on the computer, consult the system requirements to ensure that the version of Optim Designer that you are installing supports the version of Infosphere Data Architect that is already installed. If the version of Optim Designer does not support the version of Infosphere Data Architect that is already installed, either upgrade the installed instance of Infosphere Data Architect or install a new instance of Infosphere Data Architect on the computer.

To install Optim Designer:

1. If Infosphere Data Architect is not yet installed on the computer, or if you must install a new instance of Infosphere Data Architect on the computer, insert the Infosphere Data Architect installation disc into the computer or access the Infosphere Data Architect installation package, and launch the installation program from the Infosphere Data Architect installation disc or package.
 - If IBM Installation Manager is not yet installed on the computer, the installation program installs Installation Manager and Infosphere Data Architect.
 - If Installation Manager is already installed on the computer, the installation program runs Installation Manager and installs Infosphere Data Architect.

Choose *not* to run Infosphere Data Architect after it is installed.

2. Insert the Optim Designer installation disc into the computer or access the Optim Designer installation package.
3. If Installation Manager is not running on the computer, run Installation Manager.
4. In Installation Manager, click **Manage Licenses**, and import the Infosphere Data Architect product activation kit from the folder on the computer. The Infosphere Data Architect product activation kit is located in the `ida_activation_kit` folder on the Optim Designer installation disc or in the Optim Designer installation package. The product activation kit is a .jar file named `com.ibm.infosphere.data.architect.pek_vrm.jar`, where *vr*m is the version, release, and modification of Infosphere Data Architect. For example, Infosphere Data Architect V7.5.2 uses the product activation kit `com.ibm.infosphere.data.architect.pek_7.5.2.jar`.
5. In Installation Manager, click **File** → **Preferences**, click **Add Repository**, and specify the location of the Optim Designer installation repository on the Optim Designer installation disc or in the Optim Designer installation package. The Optim Designer installation repository is located in the `repo` folder on the Optim Designer installation disc or in the Optim Designer installation package. Click **OK** until you return to the main Installation Manager window.
6. In Installation Manager, click **Install**, and complete the installation wizard for Optim Designer.

Appendix L. Process Audit

Optim Process Audit is a facility that enables a site to monitor Optim processes and obtain information about their execution. When a process is started, Optim collects information such as the type of request and the user who initiated it, and writes audit records to an XML document. Audit records are produced whether a process is run from a menu or editor, using the Command Line Interface, or as a scheduled job. When you enable Process Audit for an Optim Directory, auditing is active for all users of these processes: Archive, Browse, Compare, Convert, Create, Delete, Edit, Extract, Export, Import, Insert, Load, ODM, Report, and Restore. Auditing can be activated or deactivated at any time.

Enable Process Audit using the Product Options. For details see “General Tab” on page 221. The XML documents produced by Process Audit are written to the Optim Directory audit table, PSTAUDIT2 or PSTAUDIT3 for SQL Server. An audit record is written at the completion of an Archive, Browse, Compare, Convert, Create, Delete, Edit, Extract, Export, Import, Insert, Load, ODM, Report, and Restore process.

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